MAURITIUS

ANNUAL REPORT
ON THE
MEDICAL & HEALTH DEPARTMENT
1928

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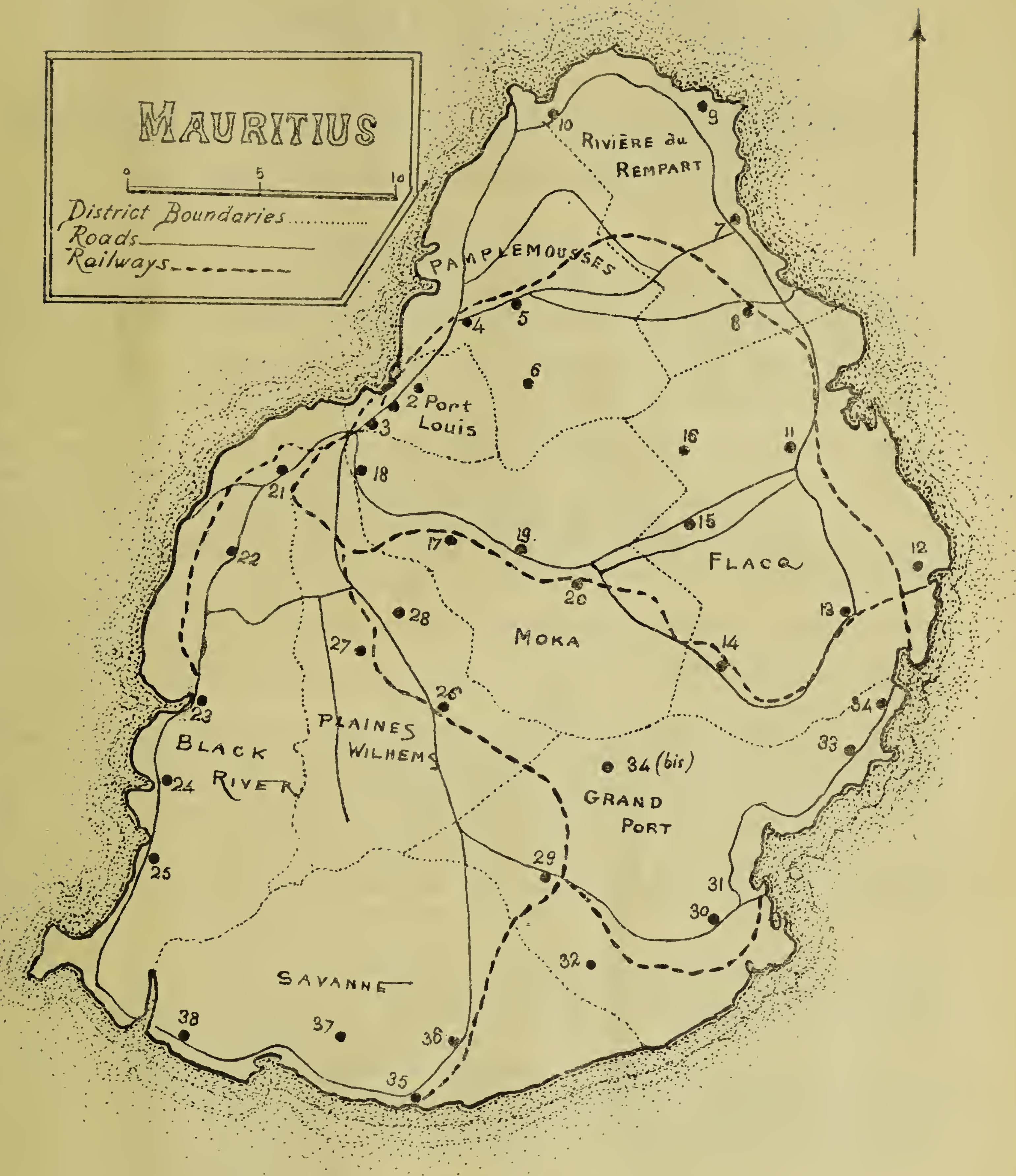

HOSPITALS AND DISPENSARIES ARE SHOWN IN THE MAP BY NUMBERS AS INDICATED BELOW.

PORT-LOUIS	
Civil Hospital	1
Eastern Suburb (St. François)	2
Western Suburb (Bell Village)	3

PAMPLEMOUSSES	
Terre Rouge	4
Pamplemousses (Village)	5
Long Mountain (attached to hospital)	6

RIVIÈRE DU REMPART	
Poudre d'Or (attached to hospital)	7
Ravin	8
Grand Gaube	9
Grand Bay	10

FLACQ	
Flacq Hospital	11
Trou d'Eau Douce	12
Rivière Sèche (Bel-Air)	13
Sébastopol	14
St. Julien	15
Brisée Verdière	16

MOKA	
Moka Hospital	17
Pailles	18
St. Pierre	19
Quartier Militaire	20

BLACK RIVER	
Petite Riviere	21
Bambous	22
Tamarin	23
Gde. Riviere Noire	24
Case Noyale	25

PLAINES WILHEMS	
Curepipe	26
Vacoas	27
Victoria Hospital (Quatre Bornes)	28

GRAND PORT	
Rose Belle	29
Plaine Magnien	30
Mahébourg Hosp.	31
L'Escalier	32
Bois des Amourettes	33
Grand Sable	34
St. Hubert	34bis

SAVANNE	
Souillac Hospital	35
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COLONY OF MAURITIUS

ANNUAL REPORT

ON THE

MEDICAL AND HEALTH DEPARTMENT

(1st JANUARY TO 31st DECEMBER 1928)

ADMINISTRATION

Dr. Jean Cantin, posted on 1st April 1928 as Resident Surgeon Civil Hospital vice Dr. Senèque on leave, was replaced temporarily and provisionally as Medical Assistant by Dr. R. Lavoipierre.

Dr. E. Rama was appointed on three years' probation as Port Health Officer and Medical Inpector of Schools in the room of Dr. F. L. Keisler who retired from the service on 1st January 1928.

The contract of service of Dr. D. D. Anderson, Tuberculosis and Venereal Diseases Medical Officer, terminated on 13th December 1928.

Dr. J. D. Dyson, Superintendent, Mental Hospital, proceeded on leave on 11th April 1928; and Dr. L. N. R. Comty, Assistant Superintendent, acted in his stead.

Dr. H. André, Government Medical Officer, Pamplemousses and Superintendent Leper Hospital went on leave on 3rd August 1928; Dr. F. Bouloux was employed temporarily and provisionally to replace him.

Dr. G. Lamberty returned from leave and resumed duty as Government Medical Officer Flacq on 30th March 1928.

Dr. Senèque, Resident Surgeon, Civil Hospital retired from the service on the fifteenth of October 1928.

The Department sustained a grievous loss on the 16th August 1928 when Dr. G. Leclézio, Government Medical Officer, Moka, passed away after having suffered for a considerable time from a painful affliction which, unfortunately, operative treatment was unable to relieve. His was a great influence for good. His profession was not so much an end in itself as an outlet for his generous and helpful nature. His private benefactions were many and largely unknown; his public were to be seen in the administration and equipment of the Hospital under his charge. He was a courageous and capable surgeon and it is largely to his influence and example that the surgery of the Colony owes its high standard of operative technique.

The work of the hospital was carried on by Dr. Leclézio's friends until the first of November when the position was regularised by the temporary and provisional appointment of Dr. C. Mayer as Medical Officer in charge of the surgical work, Moka Hospital, and of Dr. A. Rey as Government Medical Officer, Moka.

Consequent upon my appointment as Director, Medical Department, the post of Medical Officer of Health Port Louis became vacant. I continued to perform the duties of my former post until 7th September 1928 when Dr. L. M. J. Raymond Pilot was appointed Acting Medical Officer of Health Port Louis and carried out these functions concurrently with those of Sanitary Warden North.

2. The Professional Staff of the Department on 31st December 1928 was as follows :—

I.—Administration

Director : J. Balfour Kirk, M.B. Ch.B., D.P.H., D.T.M. & H.

Medical Assistant to the Director: R. Lavoipierre, M.D. (Paris)—Temporary and provisional—from 23rd April 1928.

Medical Officer of Health, Port Louis : L. M. J. Raymond Pilot, M.B., B.S., M.R.C.S., L.R.C.P., D.T.M. & H., acting from 7th September 1928.

Medical Officer of Health, Plaines Wilhems : F. J. R. Momplé, M.B., C.M., D.P.H.

Superintendent Bacteriological Laboratory and Government Analyst : L. G. Barbeau, M.B., C.M., D.P.H.

Sanitary Warden (Northern Districts) : L. M. J. Raymond Pilot, M.B., B.S., M.R.C.S., L.R.C.P., D.T.M. & H.

Sanitary Warden (Southern Districts) : A. G. Masson, M.B., Ch. B.

Port Health Officer and Medical Inspector of Port Louis Schools : E. Rama, M.D. (Paris) Médecin Colonial, Sanitaire, Maritime, Médaille d'honneur des Epidémies, 1927.

Superintendent, Mental Hospital : J. D. Dyson, M.B.B.S., D.P.M., M.R.C.S., L.R.C.P. (on leave).

Assistant Superintendent, Mental Hospital : L. N. René Comty, M.B.B.S., M.R.C.S., L.R.C.P.

Superintendent, Civil Hospital : Evariste de Robillard, M.R.C.S., L.R.C.P.
Resident Surgeon, Civil Hospital : J. Cantin, M.D. (Paris) (acting)
Superintendent, Victoria Hospital : Louis Rathier du Vergé, *M.C.*, M.R.C.S., L.R.C.P.
Resident Medical Officer, Victoria Hospital : W. R. Dupré, L.R.C.P. & S.
Police and Prison Surgeon, Port Louis and District (Government) Medical Officer and Sanitary Authority for Black River : Renald Laventure, M.D. (Montpellier).
Government Medical Officer, Plaines Wilhems : Dr. J. J. Maingard, L.M.S., S.A. London, " Médecin Colonial " Paris.
Medical Officer i/c Hookworm Branch : A. C. d'Arifat, M.R.C.S., L.R.C.P.
Assistant Resident Surgeon, Victoria Hospital : V. Pierre Goupille, M.D. (Paris).
Resident Surgeon, Civil Hospital ; H. Mollière, M.B., Ch. B. (temporarily and provisionally).

DISTRICT MEDICAL OFFICERS.

(Government Medical Officers having charge of a District Hospital and of all the Dispensaries in their district).

Pamplemousses : J. H. André, M.R.C.S., L.R.C.P.
Rivière du Rempart : S. Piarroux, L.R.C.P. and S. ; L.F.P. and S.
Flacq : H. G. Lamberty, L.R.C.P. and S. ; L.F.P. and S.
Grand Port : A. Y. Cantin, M.R.C.S., L.R.C.P., D.T.M.
Savanne : L. A. Célestin, M.R.C.S., L.R.C.P. (temporary and provisional).
Moka : A. Rey, M.D. (Paris) (temporary and provisional).
Assistant Government Medical Officer Flacq : Ph. de Chaumont, M.B.B.S., M.R.C.S., L.R.C.P.

LEGAL

3. No ordinances affecting the Public Health were enacted during the year.

FINANCIAL.

4. The revenue of the Colony for the year 1928 was	Rs. 14,311,742
The expenditure on Medical and Sanitary Services out of the Revenue was	2,433,335
The expenditure on Medical and Sanitary Services from the Improvement and Development Fund was	67,671

II—Public Health

5. The continued world-depression in the Sugar Industry, the staple industry of the Colony, has further depressed the general economic condition of the population, and as I indicated in the previous year's report this deterioration is beginning to be reflected in the Vital Statistics. The Death rate for 1928 is considerably higher than it has been in the preceding five years, but the Birth Rate has also increased from 34.5 per thousand in 1927 to 37.9 while the Infant Mortality Rate has been reduced from 136.6 per thousand to 125.5.

No epidemics were recorded during the year. The amount of sickness requiring admission to hospital has been about the same as last year, but minor sickness, as shown by the dispensary records, has increased. 5006 more consultations were given at the dispensaries in 1928 than in 1927.

21 more cases of malignant disease were admitted to the hospitals than in 1927, the figures being 134 cases for 1928 as compared with 113 during 1927. About half (62) of these tumors were situated in the female genital organs and breast ; the stomach and liver accounted for 18, peritoneum and intestinal tract for 9, buccal cavity for 11, and skin 5. In 16 cases the site was not specified. The non-malignant new growths numbered 63. The total number of deaths from cancer was 69.

(A).—COMMUNICABLE DISEASES

Insect—Borne Diseases

Malaria.

6. Four species of Anopheles are known to exist in the Colony, viz : *A. costalis*, *A. funestus*, *A. maculipalpis and A. mauritianus.* The principal transmitter of malaria is *A. costalis.*

It is possible to record only the number of patients suffering from malaria in hospitals or applying for treatment at dispensaries, and the number of deaths certified by Medical Practitioners as being due to this disease.

The total number of admissions to hospital of patients suffering from Malaria was 2811, an increase of 219 over the figure for the previous year. The case mortality was 2.39o/o.

The following tabular statement shows the admissions for Malaria and deaths ascribed to it during this and the preceding year.

INSTITUTIONS	MALARIA			
	Admissions		Deaths	
	1927	1928	1927	1928
Civil Hospital	480	805	7	35
Port Louis Prison	48	33	...	...
Long Mountain Hospital	213	286	3	2
Poudre d'Or Hospital	671	347	12	4
Flacq Hospital	218	183	4	2
Mahebourg Hospital	236	109	4	7
Souillac Hospital	248	535	2	5
Victoria Hospital	337	425	9	2
Beau Bassin Prison	88	28	...	...
Moka Hospital	13	13	2	...
Mental Hospital	28	47	1	1
	2,580	2,811	44	58

The total number of deaths from Malaria and Malarial Cachexia, 2,424, is equivalent to a death rate of 6‰ living. The rate for 1927 was 5.26‰.

A good guide to the Malarial prevalence in the districts is the examination of the spleen rates in school children. On an average 15,411 children were examined half yearly by the Medical Officers concerned, with the following result.

District	1926	1927	1928
	%	%	%
Port Louis	3.9	4.4	7.61
Pamplemousses	11.34		
Riviere du Rempart	10.95		
Flacq	26.56	27.6	
Grand Port	22.71	21.9	24.95
Savanne	17.23	12.9	13.02
Black River	59.1	54.4	38.30
Plaines Wilhems	1.47	1.5	1.42
Moka	3.29	3.8	4.6

*FILIARIASIS

7. Dr. Pilot made a small survey in Riviere Seche, Flacq District, a village of about 2,000 population. 200 specimens collected from the general public showed an infection rate of 16.7%.

In the Civil Hospital Port Louis night specimens of blood were taken as a routine from every patient admitted. The results of their examination were as follows :—

District	Number examined	Number Infected	Rate %
Port Louis	2,108	197	9.3
Black River	116	11	9.4
Plaines Wilhems	103	5	4.8
Flacq	72	9	12.5
Plamplemousses	202	27	13.3
Rivière du Rempart	66	8	12.1
Grand Port	25	3	12.0
Savanne	26	3	11.5
Moka	48	1	2.0

PLAGUE

8. The last notification of human plague in the Colony was made on the 16th October 1927. This case was a sporadic one, and at the time of its occurrence there was no evidence of plague amongst rats. Since then no further sign of plague has appeared, either amongst rats or human beings.

Notwithstanding this favourable position, plague preventive measures were continued. The report of the Medical Officer of Health Port Louis on page 27 gives an account of some of these.

TYPHUS FEVER

9. No case of this disease was notified during the year.

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* See also page 16.

(B).—INFECTIOUS DISEASES

Small-Pox

10. There has been no small-pox in the Colony since 1913. 11,016 children were vaccinated during 1928 by the public vaccinators. The data are given hereunder:—

Successful vaccinations on 1st attendance	10,774	
„ „ 2nd and subsequent attendances	205	
		10,979
Unsuccessful vaccinations		21
Vaccinations in which the results could not be ascertained		16
Total ...		11,016

The proportion of vaccinated children to live births is 77.34%. The increase shown over the figures of the previous year has been caused by the vaccination of the school children referred to on page 5 of the previous year's report. The general situation regarding vaccination and re-vaccination against small-pox in the Colony is no less disquieting than it has been for several years past. There is no reason to believe that the freedom which Mauritius has enjoyed from small-pox in recent times will continue unless the quarantine measures are reinforced by the vaccination and the re-vaccination of the whole population.

Enteric Fever

11. 135 cases were notified. 54 of them received hospital treatment with a case mortality rate of 37.04%. The reports of the Medical Officers of Health and the Sanitary Wardens indicate that the infection at no time took on an epidemic form. There has been no evidence to incriminate water or milk as vehicles of the infection.

Diphtheria

12. 63 cases of diphtheria were notified in 1928. The disease appears to bear most heavily on those living in the cooler regions of the Colony.

Puerperal State

13. 211 deaths were registered as being due to the puerperal state.

The deaths are classified as under:—

Puerperal convulsions	27
Puerperal embolism	1
Puerperal haemorrhage	10
Puerperal sepsis	32
Abortion	2
Other accidents of pregnancy	2
Other accidents of child birth	137

14 cases of puerperal septicæmia, of which 7 proved fatal, were treated in hospital—a case mortality of 50%.

The mortality rate of child birth in 1928 was 18.8 per o/oo. This is about five times the average European rate.

The causes of the high mortality among the mothers of the Colony are doubtless many but the principal would appear to be lack of skilled medical attention at childbirth. This is by no means entirely due to a shortage of doctors in the Colony, and must be explained by a survival of archaic prejudice amongst a large proportion of the people.

Measles

14. 2 cases of measles were notified during the year.

Erysipelas

15. 27 cases were notified, compared with 41 in 1927. 10 deaths were registered.

Pulmonary Tuberculosis

16. Out of the 11.332 deaths of 1928, 560 were due to pulmonary tuberculosis giving a death rate of 13.51 per 10,000 inhabitants.

The total number of new cases of Pulmonary Tuberculosis examined at the two clinics, in Port Louis during 1928 has been 985; 704 males and 281 females.

Leprosy

17. The Leprosy Board examined 7 suspected lepers and ordered their detention in the Leper Hospital.

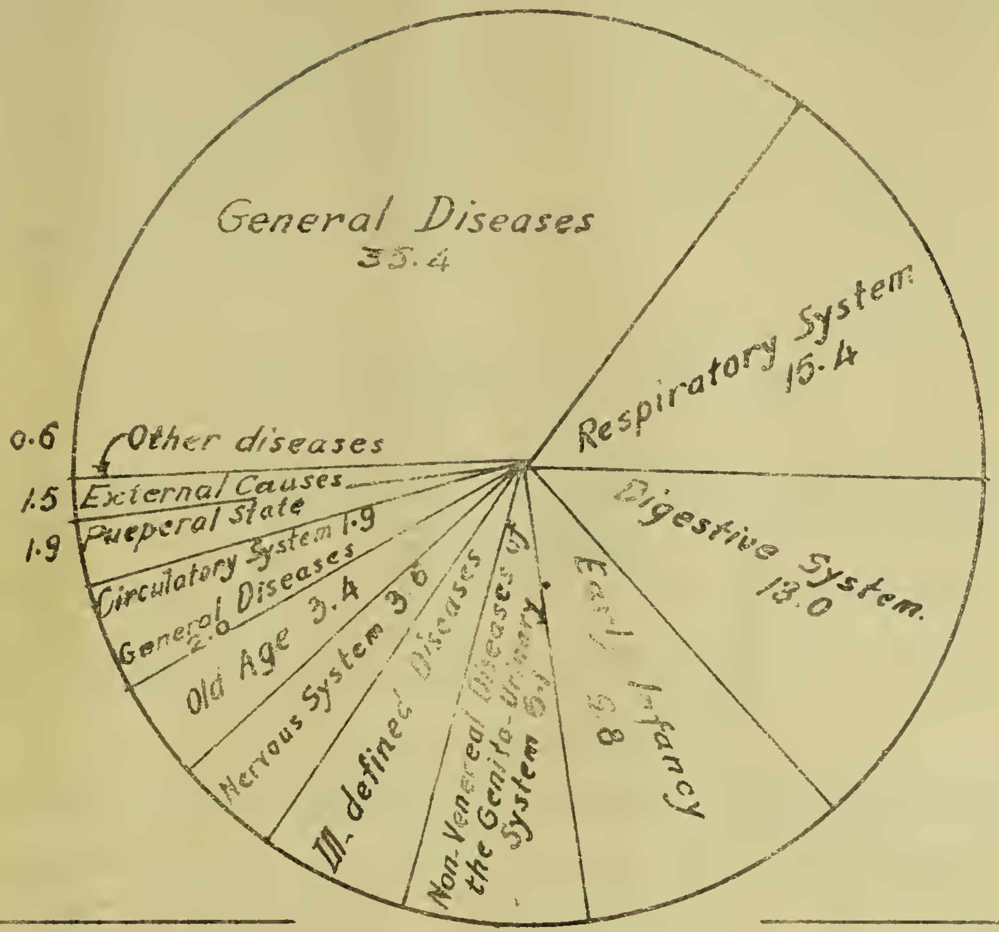
11 were admitted from Rodrigues making a total of 18 admissions in all. The Mauritius patients were resident in the following districts:—Flacq 3, Plaines Wilhems 2, Moka 1, Port Louis 1.

The place of detention is the Powder Mills Leper Hospital.

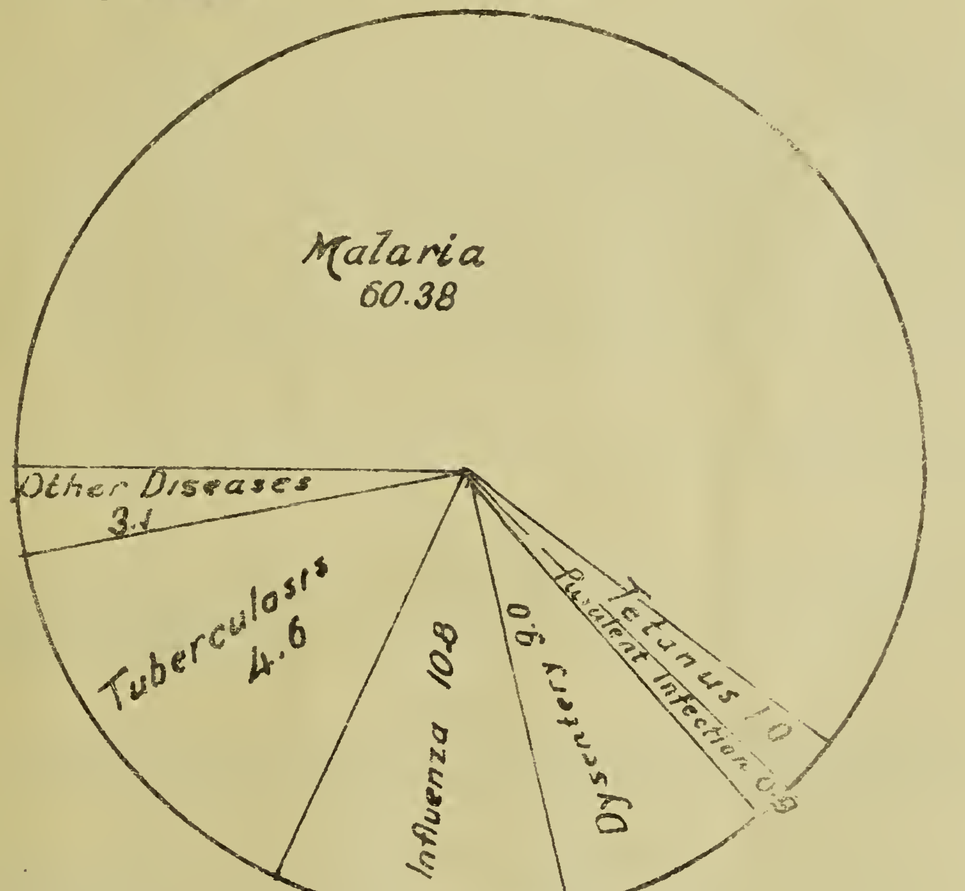
Chicken Pox

18. Four cases of this disease were treated at the Civil Hospital and 1 at Barkly Industrial School Hospital, Beau Bassin.

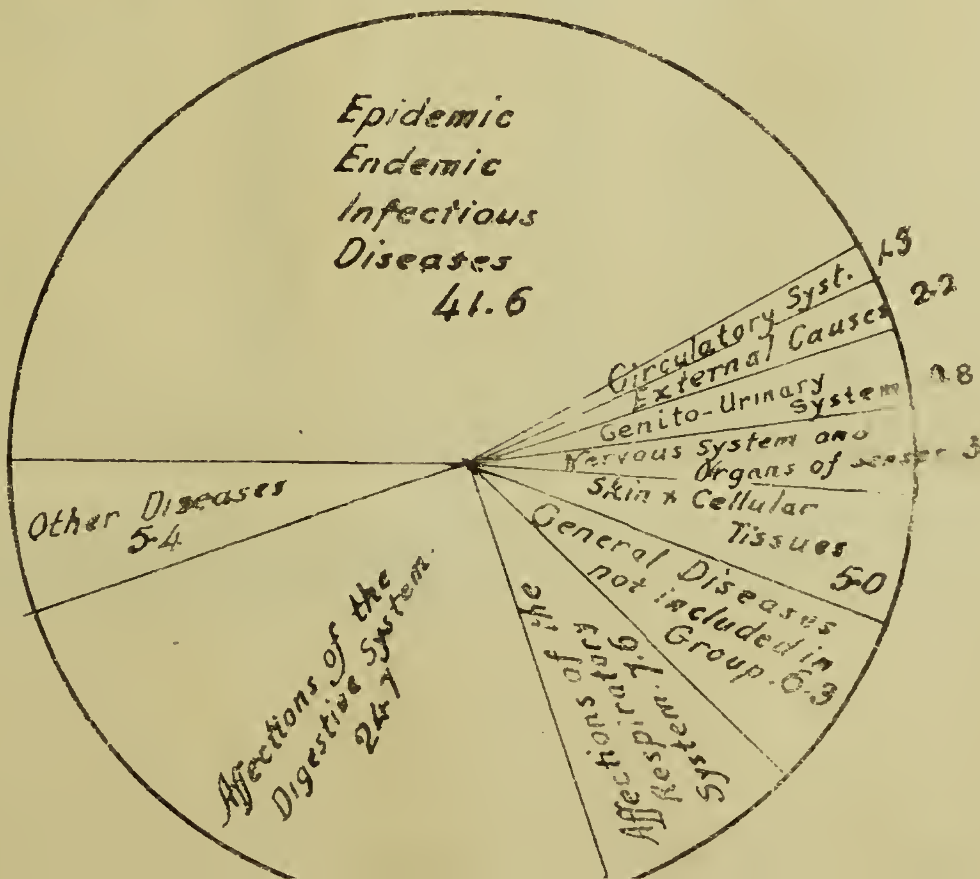
from
Registrar General's Report.



Classification of Deaths due to
Communicable Diseases



Diseases in Outpatient Population
treated of Public Dispensaries



VENEREAL DISEASES

19. 333 cases of syphilis, with 8 deaths, were admitted to the Hospitals during the year. The details are given in Appendix IV return of Diseases (Hospitals). 276 cases of Gonorrhoea were treated, and 47 cases of chancroid.

The Clinic had a busy year. The statistics are as follows:—

New cases passing through the Clinic					
Male ...	446	Female ...	95	Total ...	541
New cases passing through the Venereal Wards				. .	3,695
				Total ...	4,236

(C).—HELMINTHIC DISEASES.

ANKYLOSTOMIASIS.

20. The Annual Report on the Hookworm Campaign is printed separately (Appendix II).

SCHISTOSOMIASIS.

21. 61 cases of this condition were treated in the hospitals during the year, and 60 at the dispensaries.

The local intermediate host has not yet been determined.

VITAL STATISTICS

22. The distribution of the population and its density in each District are shown hereunder

ESTIMATED POPULATION OF MAURITIUS ON THE 31ST DECEMBER 1928

Districts	Area in square miles	General Population			Indian Population			Total Population			Density per square mile
		Males	Females	Total	Males	Females	Total	Males	Females	Total	
Port Louis .	16	16,467	14,852	31,319	11,946	11,199	23,145	28,413	26,051	54,464	3,404.
Pamplemousses ...	69	3,343	3,230	6,573	16,188	15,051	31,239	19,531	18,281	37,812	548.
Rivière du Rempart ...	57½	3,209	2,921	6,130	14,503	13,618	28,121	17,712	16,539	34,251	595.67
Flacq	115	5,692	5,300	10,992	23,007	21,302	44,309	28,699	26,602	55,301	480.87
Grand Port ...	101	7,009	6,640	13,649	20,061	18,229	38,290	27,070	24,869	51,939	514.24
Savanne	93½	3,985	3,858	7,843	14,522	12,896	27,418	18,507	16,754	35,261	377.12
Plaines Wilhems ...	78	16.821	19,244	36,065	26,616	25,369	51,985	43,437	44,613	88,050	1,128.84
Moka	89	2,887	2,995	5,882	14,317	13,235	27,552	17,204	16,230	33.434	375.66
Black River ...	101	2,722	2,602	5,324	4,688	4,278	8,966	7,410	6,880	14,290	141.48
Grand Total ...	720	62,135	61,642	123,777	145,848	135,177	281,025	207,983	196,819	404,802	562.22 (mean)

The chief feature of interest here is the high density of population: 562.22 per square mile.

MARRIAGES

23. 1566 marriages were celebrated in 1928 as compared with 1431 in 1927 showing an increase of 135. This is equivalent to a marriage rate (number of persons married to every thousand of population) of 7.8 o/oo.

BIRTHS.

24. The total number of births for the year was 15,206 (7678 males and 7528 females). 5028 of these occurred in the General, and 10,178 in the Indian population. The birth rate was 37.9 o/oo.

The District birth-rates (on population as at 1st January of each year) and the five-year mean rates are as follows:—

District	1924	1925	1926	1927	1928	Mean o/oo
Port-Louis ...	42.9	42.0	39.5	36.0	38.4	39.76
Pamplemousses ...	37.4	39.8	39.2	33.3	32.6	36.46
Riv. du Rempart ...	41.2	43.6	41.2	34.9	38.7	39.92
Flacq ...	38.4	42.0	35.4	31.1	31.5	35.68
Grand Port ...	37.0	40.7	38.0	31.0	37.3	36.8
Savanne ...	38.9	39.4	34.5	30.7	39.5	36.6
Plaines Wilhems ...	44,0	47.2	44.9	40,3	42.7	43.82
Moka ...	46.7	46.6	40.5	36.0	39.7	41.90
Black River ...	27.6	32.9	33.2	29.0	36.8	31.90
Whole Colony ...	40.4	42.6	39.4	34.5	35.2	38.42

It will be observed that the birth-rate was higher than that of last year.

DEATHS.

25. During the year 1928 the total number of deaths was 11,342 (5852 males and 5490 females; 3296 in the General and 8046 in the Indian population). This number is an increase of 1327 over the total deaths of 1927.

The death rate for the Colony was 28.2 o/oo compared with 25.1 o/oo for 1927 and with 26.1 o/oo for the quinquennial period preceding 1928. The month of maximum mortality was July.

The following table shows the district death-rates (a) yearly for the five yearly period 1924–28 and the average rates for the same period:—

Districts	1924	1925	1926	1927	1928	Average °/₀₀
Port Louis ...	34.6	26.1	28.0	27.7	32.1	29.70
Pamplemousses ...	30.5	26.5	28.8	33.2	40.1	31.62
Riv. du Rempart ...	26.8	23.3	25.6	25.5	26.4	25.52
Flacq ...	28.1	24.8	25.7	27.9	33.1	27.92
Grand Port ...	31.0	26.0	29.6	24.5	27.1	27.64
Savanne ...	24.8	24.1	25.4	24.1	27.0	25.08
Plaines Wilhems ...	20.6	19.4	18.4	18.1	19.0	19.10
Moka ...	24.3	21.8	22.8	25.8	26.6	24.26
Black River ...	36.5	32.4	33.2	28.5	34.0	32.92
Whole Colony ...	27.7	24.1	25.3	25.1	29.5	27.08

The death-rate for Plaines Wilhems is the lowest death-rate of all the districts of the Colony.

The next table, with the figures for 1927, inserted for purposes of easy comparison, summarises the causes of death and the rates in the usual groups (*b*);—

Group	No. of deaths		Rate o/oo	
	1927	1928	1927	1928
I. General Diseases	3,592	4,014	9.0	10.0
II. General Diseases (not including above) ...	185	226	...	.6
III. Diseases of the nervous system and sense organs	411	415	1.0	1.0
IV. Diseases of the circulatory system ...	209	221	.5	.5
V. Diseases of the respiratory system ...	1,556	1,751	3.9	4.4
VI. Diseases of the digestive system	1,212	1,459	3.0	3.6
VII. Non-Venereal diseases of the genito-urinary system and annexa	600	687	1.5	1.7
VIII. The puerperal state	147	211	.4	.5
IX. Diseases of the skin and cellular tissue ...	32	67	.1	.2
X. Diseases of the bones and of the organs of locomotion	7	4	.0	.0
XI. Congenital malformations	2	3	.0	.0
XII. Diseases of early infancy	1,003	1,115	2.5	2.8
XIII. Old Age	272	389	.7	1.0
XIV. Affections produced by external causes ...	142	167	.4	.4
XV. Ill-defined diseases	645	610	1.6	1.5
	10,015	11,342	25.1	28.2

The more notable causes of death were as under;—

Diseases	No. of Deaths		Rate per o/oo living	
	1917	1928	1927	1928
Malaria and malarial cachexia	2,095	2,424	5.26	6....
Pneumonia and broncho-pneumonia	869	1,117	2.18	2.74
Influenza	465	435	1.16	1.07
Diseases of early infancy	1,003	1,115	2.51	2.76
Pulmonary tuberculosis	485	768	1.21	1.9
Diarrhoea and enteritis	916	1,028	2.29	2.54
Bronchitis	547	495	1.37	1.22
Old age and debility	649	776	.68	1.92
Dysentery	342	364	.85	.9
Albuminuria, Bright's disease, nephritis and uraemia	567	657	1.42	1.62
Heart diseases (organic)	150	134	.37	.3
The puerperal state	147	211	.36	.5

INFANTILE MORTALITY

26. The infantile mortality rate is the number of deaths of infants under one year of age occurring in any year for every thousand live births registered during the same year.

(a) These are crude death-rates, *i.e.* deaths irrespective of any consideration as to whether they are indigenous to the district or imported from another district.

(b) The grouping of causes of death here followed is that adopted by the Registrar General in his annual report, in accordance with the classification adopted by the Registrar General of England, based on the third decennial revision by the International Commission, Paris 1920. Influenza, Whooping Cough, Tuberculosis are included under General Diseases (Group I).

The rate for 1928 was 125.54o/oo as compared with 136.6o/oo for 1927.

The deaths under 5 years were distributed as follows :—

	Males	Females	Total
Under 1 year	994	915	1,909
1 year and under 2 years ...	282	299	581
2 years ,, 3 ,, ...	246	295	541
3 years ,, 4 ,, ...	137	163	300
4 years ,, 5 ,, ...	101	134	23
Total under 5 years ...	1,760	1,806	3,566

The following table shows the grouping of those deaths according to the causes inscribed on the death certificates.

Causes of death	Under 1 year	1 to under 5 years
General Diseases	312	731
General diseases not included above	5	12
Diseases of the nervous system and organs of the special senses ...	34	71
Diseases of the circulatory system	1	5
,, ,, respiratory system	176	205
,, ,, digestive system	215	400
Non-venereal diseases of the genito-urinary system and annexa ...	4	34
Diseases of the skin and cellular tissue	2	6
,, ,, bones and organs of locomotion	...	...
Malformations	3	...
Diseases of early infancy	1,115	...
Affections produced by external causes	5	24
Ill-defined causes	37	169
Icterus Neonatorum	4	...
All causes... ...	1,909	1,657

The distribution of the deaths attributed to the diseases of early infancy and a comparison of these figures with those of 1927 is shown below :—

Designation of diseases and accidents	1927	1928
Congenital debility and sclerema ...	962	1,074
Premature birth	18	17
Atelectasis	5	9
Injuries at birth	9	4
Diseases of umbilicus, etc	4	8
Other diseases peculiar to early infancy ...	1	3
Total ...	1,003	1,115

STILL-BIRTHS

27. A Still-birth is defined by the Registrar General as " a child born dead at or after the seventh month of pregnancy."

The number of still-births registered during 1928 is as under—

District	MALES		FEMALES		TOTAL	
	1927	1928	1927	1928	1927	1928
Port Louis	91	80	80	68	171	148
Pamplemousses ...	58	66	49	46	107	112
Riv. du Rempart ...	50	54	35	46	85	100
Flacq	131	142	67	98	198	240
Grand Port	82	96	78	91	160	187
Savanne	42	55	42	59	84	114
Plaines Wilhems ...	123	125	116	122	239	247
Moka	64	70	69	66	133	136
Black River	32	38	18	32	50	70
Total ...	673	726	554	628	1,227	1,354

It is equivalent to 89.04 o/oo of live Births, for the same period, as compared with 89.2 o/oo for 1927

The still-births are distributed as follows for the two great classes of the population.

	Males	Females	Total
General population	160	137	297
Indian population	566	491	1,057
Total ...	726	628	1,354

III.—Hygiene and Sanitation

INSECT BORNE DISEASES

MALARIA

28· The Anti-Malarial work carried out by the Department may best be considered under two headings :

(a) Maintenance

(b) New Works

Maintenance

Drains and Canalised Streams upkept.

District	Feet
Port Louis	186,331
Pamplemousses	237,885
Rivière du Rempart	21,775
Plaines Wilhems ...	378,171
Moka	278,313
Flacq	166,200
Savanne	37,454
Black River	68,885
Grand Port	140,983
Total ...	1,515,997

New Works

The general policy adopted in the conduct of the Anti-Malaria Campaign is to regard it as being waged in two successive steps—the first being the treatment of the area lying above the 600 foot contour line : the second the treatment of the coastal belt below 600 feet. No extensive new works are to be undertaken until an estimate of the cost of each part of the campaign has been made. At the outset, however, the need for rapid action regarding the mosquito nuisances at Curepipe was considered to justify the performance of the new works specified in the table on the following page.

A number of anopheline nuisances were abated by the filling in of certain marshes and hollows, and the main drainage channel of the eastern side of Curepipe, the Mesnil River, was deepened and widened over a very considerable extent of its length. The actual data are given in the table. This work was very arduous, since, for the greater part of its length, the river courses over solid rock. The work has been well done and Mr. L. Naz, the Sanitary Engineer is to be congratulated on his fine performance.

Concurrently with the performance of these works, surveys were made of the other winter refuges and estimates were made of the cost of their abolition. The work proved more difficult and involved than our original conception of it had led us to think and by the end of the year it had not been completed.

Table showing the monthly progress of the Anti-Malarial Works undertaken during 1928.

Month	Locality	Marshes, Depressions etc. filed in	Drains constructed and reconstructed	Streams cleaned, graded and trained
January	Eau Coulée	800′ × 75′	...	...
do.	do.	1500′ × 4′ × 1′	...	800′
do.	Midlands	8360 sq. ft. × 2′	294′ × 1′6″ depth. Solid Rock	...
do.	Corps de Garde	...	...	9,300′
February	Mesnil River	...	90′	..
do.	Curepipe Extra Urban	...	Stream—3′ × 4′6″ × 820 feet and construction of stone culvert bridge	240′
do.	do.	300′ × 150′ × 2′ and 250′ × 15′ × 2′	...	...
do.	do.	2120 sq. ft. 3 ft. deep	...	Roadside trench deepened 3′ and trained over 500 feet in rock
do.	Corps de Garde	...	800 feet	...
do.	do.	...	...	1590 feet. (Clearance of bush on banks).
March	Curepipe Extra Urban	9515 sq. ft. × 2′ depth	586 feet	...
do.	do.	1600 sq. ft. 18″ to 4′ depth	310 feet	...
April	do.	2,400 sq. ft. × 18″ depth	Mesnil River channelled 225 ft. 4 ft. wide and 4 ft deep	1,086 feet graded
do.	do.	1,300 sq. ft. × 18″ depth	...	580 feet graded
do.	do.	12,000 sq. ft. × 1′ depth	...	...
May	Curepipe	...	Mesnil River 200′ deepened 4′ wide and 4′ deep	...
June	do.	...	Mesnil River, about 100′ deepened 4′ wide and 4′ deep	...
do.	do.	...	Reconstruction of bridge	...
July	do.	...	124 feet of Mesnil River deepened 4′ wide and 4′ deep	...
August	do.	Nil	Nil	Nil
September	do.	...	...	...
October	do.	...	75 feet of River Mesnil deepened 5′ and widened 3′ and 50′ deepened 4′ and widened 3 ft.	...
November	do.	...	River Mesnil channel widened by 3′ and deepened by 4–5 ft. on a length of 322 ft.	...
December	do.	...	175 feet of previous work supplemented by widening bed of Mesnil River by 1′. Reconstruction of 3 bridges. Regrading, broadening by 3′ and deepening by 4′; 70′ of the River. Deepening by 4′ and widening by 3 feet the bed of the river on a length of 142 feet.	...

PLAGUE

29. Routine rodent examination was discontinued in the rural districts but was maintained in Port Louis and Plaines Wilhems.

The following tables record the work done.

DESTRUCTION OF RODENTS 1928

Port Louis	57,510
Plaines Wilhems	22,809
Total ...	80,319

RODENTS MICROSCOPICALLY EXAMINED

District	Examined	Infected	Infection Rate
Port Louis	43,108	Nil	Nil
Plaines Wilhems	16,628	Nil	Nil

The report of the Medical Officer of Health, Port Louis, gives further details.

HELMINTHIC INFECTIONS

ANKYLOSTOMIASIS

30. The report of the Medical Officer in charge of the Ankylostomiasis Campaign is printed as appendix II.

SCHISTOSOMIASIS

31. This condition is still being studied. See the Scientific Section (infra) of this report.

ENTERIC FEVER

32. The cases of this diseases were investigated along the usual lines without any clue being obtained regarding the source of the infection. The carrier problem has never been made the subject of a searching local investigation although most of the enteric fever is thought to be derived from human carriers.

GENERAL MEASURES OF SANITATION

NIGHT SOIL AND CONSERVANCY

33. In Port Louis the work on the Sewerage system was continued. 316 house connections were made to the sewers with an equivalent reduction in the number of pail latrines. The New Mauritius Dock Company, faced with the impossibility of ever having the advantages of the town water-carriage system for their labourers' camp, installed an independent water carriage system, in which the sewage is subject to septic tank treatment and the effluent discharged into the harbour. The apparatus works satisfactorily,

There were still, however, over two thousand five hundred pail privies under the care of the Sanitary Department during the greater part of the year. The night soil from these was disposed of by tipping it into the outfall sewer on the Western Side, and into a septic tank on the Eastern side, the effluent from the tank being passed through an aerobic filter before being discharged into a neighbouring watercourse. This tank was cleaned during the year.

The Night Soil Service at Curepipe is also carried out by the Health Department. Some 1010 services are performed there daily on an average.

In other parts of the Colony where pail services exist, the work has been done either by the Local Authority e.g. Rose Hill—Beau Bassin Board of Commissioners, or by contractors working under Government supervision. The services have been satisfactory upon the whole.

The pit latrine is beginning to develop sanitary features of its own—chiefly in the direction of maintenance. There is still a good deal of spade work to be done in the way of inducing the rural population to use these latrines habitually.

In this connection, the Hookworm Campaign is a great educational factor while the work of the Sanitary Inspector should not be overlooked.

If the rural population could be induced to make a habit of using its pit latrines it would take proper steps for their maintenance. A neglected pit latrine, only occasionally used, is a dangerous thing—possibly more dangerous than occasionally fouled surface soil, but when the pit latrine is brought into regular use, it becomes a definite sanitary asset whose value increases with the degree of intelligence of the users.

COLLECTION AND DISPOSAL OF REFUSE

34. In Port Louis the town refuse, collected daily from all parts of the town, is still being used for the filling in of depressed areas. Port Louis and the chain of villages lying along the main road from Rose Belle to Mahebourg are the only places where the Scavenging Service is carried out by the Sanitary Department. In other places the work is done either by the Local Authority or by Contractors working under the supervision of the Sanitary Department.

WATER SUPPLIES

35. The Medical Officer of Health's report records the condition of affairs in Port Louis. The Northern Districts have now a satisfactory piped supply.

In the South improvements have been made, but there are still places where the supply is very unsatisfactory.

SCHOOL HYGIENE

36. In Port Louis, Dr. Rama examined 2809 children from a nominal roll of 3155. The principal conditions observed by him were the following :—

School Children Port Louis 2809 examined.

	Number	*Percentage*
Pediculosis	202	7.1
Scabies	55	1.9
Skin Diseases ...	1	.03
Defective eyesight ...	54	1.9
Ear trouble	46	1.6
Tonsils	22	0.7
Bad teeth	194	6.9
Malaria	214	7.6
Schistosomiasis ...	19	0.6
Worm infection ...	182	6,4
Ankylostomiasis ...	24	0.8

37. The following extracts from the report of the Sanitary Warden, South, give some indication of the physical condition of the children attending the rural schools.

"The schools of the three districts (Moka, Savanne and Grand Port) were inspected at least once during each of the two half years for the purpose of carrying out the spleen census.

The table below summarises the results obtained :—

District	Total number of pupils examined	Pupils shewing decayed teeth	Scabies	Enlarged Spleen			Spleen rate	Spleen average
				Small	Medium	Large		
Moka ...	1216	447	3	26	9	13	4.6	1.19
Savanne ...	1526	611	2	132	35	31	13.02	1.44
Grand Port	1463	613	4	232	71	68	24.95	1.96

The following schools presented the highest rates in respect of malaria :—

School	Spleen rate	Spleen average
Moka District		
Pailles Aided	58.31	4.1
Savanne		
Surinam Aided	13.17	1.3
Chemin Grenier Govt. ...	18.98	1.59
Chemin Grenier Aided ...	10.00	1.29
Baie du Cap Aided ...	48.48	2.84
Grand Port		
Plaine Magnien Govt. ...	49.1	3.06
Plaine Magnien Aided ...	43.59	2.3
Escalier Government ...	25.09	1.41
Riche-en-Eau Govt. ...	48.79	2.8
St. Hubert Aided ...	39.28	2.5
Rivière Creoles Govt. ...	59.00	4.06
Old Grand Port Aided ...	26.08	1.74
Bois des Amourettes Aided...	44.44	2.73

Defective dentition :]

Of the children examined it will be seen from the first table above that in Moka 36.76% in Savanne 40.04% and in Grand Port 41.9% shew a diseased condition of teeth.

It has been observed that the more malaria stricken and consequently the more anæmic the population the more it suffers from bad teeth. It is true that these conditions run pari passu with poverty and ill feeding."

"It is to be regretted that more attention is not devoted by the majority of schoolmasters to the practical teaching of hygiene by means of object lessons. For instance, lack of cleanliness and personal hygiene is not brought home to the children some of whom disgustingly dirty are allowed to sit next to clean, healthy and better groomed ones."

"School hygiene in Mauritius is still rudimentary and no doubt many a year will elapse before appreciable progress can be reported. Not that this applies to primary schools only but many secondary ones are also defaulters, although to a lesser degree."

Labour Conditions.

38. From the reports of the Medical Officers concerned it would appear that the general hygienic conditions under which contracted servants are housed on estates have been generally satisfactory.

There have been no widespread epidemics in the rural areas and the most insidious and important infections from the economic point of view are hookworm infection and malaria both of which are endemic, and practically widespread.

FOOD IN RELATION TO HEALTH AND DISEASE

Markets and Abattoirs

39. There are 6 public and 7 private Abattoirs in the Colony. The public Abattoirs administered by the Municipality of Port Louis, the boards of Beau Bassin and Rose Hill and Curepipe are each controlled by a veterinary officer.

The other abattoirs are conducted under the supervision of the Sanitary staff.

The quality of the public milk supply is controlled by the Medical and Health Department.

Appendix III gives the details of action taken with reference to other types of food.

MEASURES TAKEN TO SPREAD THE KNOWLEDGE OF HYGIENE AND SANITATION

40. Drs. d'Arifat and Barbeau, in conducting the hookworm and anti-malarial campaigns respectively, give public lectures and talks on hygiene and sanitation. The cinema is used in connection with these campaigns as well as in the Anti-Tuberculosis Campaign conducted by Dr. Anderson. There can be little doubt that these activities have had a beneficial effect in stimulating the public interest in the art of keeping well.

Hygiene forms an integral part of the instruction in primary and secondary schools—but there is still a tendency to talk it instead of to live it. There is little use in describing the evils of soil pollution to the children of a school and of piously exhorting them always to use latrines for the needs of nature while the school latrine continues to be kept in a perfectly nauseating condition.

Training of Sanitary Personnel

41. The Medical Officer of Health Port Louis and the Acting Chief Sanitary Inspector conducted a course of lectures for the Sanitary Staff in the Northern part of the Island while the Sanitary Warden, South, held classes at Rose Belle for the staff of the Southern Districts.

RECOMMENDATIONS FOR FUTURE WORK

42. The Commission appointed to inquire into the possibility of increasing the efficiency and reducing the cost of this Department and to make recommendations accordingly has not yet completed its task.

IV.—Port Health Work and Administration

43. The following table summarises the work done by the Port Sanitary Authority.

Vessels arriving		Crew examined		Passengers examined	
Sailing craft	Steamers	Sailing craft	Steamers	Sailing craft	Steamers
19	242	298	19,839	331	3,449

Vessels given pratique on arrival	Vessels given pratique after disinfection	Vessels refusing pratique	Vessels claytonised at request owners
188	67	6	24

Quarantine

44. S.S. *Alavi.*—One case of small pox was detected on board the "S.S. Alavi" which arrived here on 27.3.28 from Bombay and Karachi. The patient and passengers with their luggage and personal effects were brought to Flat Island Quarantine Station by the ship's own means.

The indirect contacts were detained for 13 days, whereas the direct contacts were kept with the patient until his complete recovery, and they were discharged on the 25th April 1928. During the period of quarantine at Flat Island, no new case was detected. The disinfection and fumigation of passenger's luggages and effects took place at Flat Island.

On her return from Flat Island, "S.S. Alavi" anchored at the inner Quarantine Berth under strict quarantine supervision. The crew were vaccinated, the cargo with the exception of flour, the luggage and personal effects of the crew were fumigated on board and the ship was disinfected, after which she was allowed to unload her cargo in quarantine. The boat left for Bombay before the quarantine period was over.

S.S. Explorateur Grandidier.—Measles having been declared as infectious and contagious disease in virtue of regulation No. 301 of 17th November 1923, "S.S. Explorateur Grandidier" a ship belonging to the Messageries Maritimes, was placed in quarantine on 13th July 1928, the day of her arrival on account of a case of measles amongst the members of the crew. The cargo for Mauritius was fumigated before unloading.

The passengers ware sent overland by Department's Ambulance Cars to Cannoniers' Point Quarantine Station. The first class passengers were detained for 7 days and the rest who were in more direct contact with the crew were kept for 12 days. Passengers' luggages and personal effects were disinfected. No case occurred during the period of quarantine.

V—Maternity and Child Welfare

45. The Child Welfare Guild and the Œuvre Pasteur de la Goutte de Lait continue to do very good work. These bodies each issue reports of their work which requires no further reference here.

VI—The Midwives Board

46. This board held 15 sittings during the year. The composition of the Board was as follows :

The Director, Medical and Health Department—Chairman.
The Honourable Dr. E. Laurent
Dr. E. L. de Chazal, C.B.E.
Dr. E. de Robillard
Dr. L. R. du Vergé

31 applications for registration were considered, and the Board being satisfied that the applicants were of good character and otherwise eligible ordered that their names be entered on the Register of Midwives.

26 candidates were selected for training as Midwives in the different hospitals in the Colony. On the 16th February and 14th August the Board held an examination for the award of certificates as Second Class Midwives ; out of 20 candidates 14 succeeded in obtaining their certificates (four in February and 10 in August).

47 applications for registration as Labour Attendants were received from women stated to have been in practice before the enactment of the new legislation. Each applicant was interviewed by the Board, and it was decided to allow the applicants to practise as labour attendants until such time as a sufficient number of qualified midwives would be available to replace them. The applicants were mostly of the dai class.

The Regulations published under G. N. No. 180 of 30th July 1927 provide for two classes of midwife. The first class for literate persons of a good general education, the second class for women illiterate or uneducated but of known respectability and capacity. The policy of the Board is naturally to encourage the training of midwives of the first class rather than those of the second, but local conditions make the recognition of a second class indispensable in the meantime.

VII.—Hospitals

47. The work of the hospitals during 1928 is summarised in the table hereunder and in Appendix

REPORT ON HOSPITAL WORK FOR THE YEAR 1928.

Hospitals	Patients remaining on 31.12.27	New admissions	Deaths	Patients remaining on 31.12.28	No. of beds	No. of surgical operations	Particular diseases causing largest No. of admissions	Particular diseases causing largest No. of deaths
Civil ...	98	6,874	343	144	357	1,115	Malaria, Tuberculosis, Ankylostomiasis and Rheumatism ...	Tuberculosis and Pneumonia
Port Louis Prison ...	4	138	2	2	16	4	Malaria, Influenza and Dysentary ...	Nil
Long Mountain ...	94	1,846	112	73	63	122	Malaria, Dysentery, Pulmonary Tuberculosis	Pulmonary and other form of Tuberculosis, Dysentery
Poudre d'Or ...	14	1,955	49	21	70	194	Malaria fever, Bronchitis, Nephritis ...	Nephritis, Tuberculosis
Flacq ...	51	2,039	113	18	84	155	Malaria, Influenza, Bronchitis, Nephritis and Abscess ...	Tuberculosis
Mahebourg ...	41	2,344	131	42	114	744	Dysentery and Bronchitis ...	Nephritis and Pneumonia
Souillac ...	56	2,844	116	50	94	504	Malaria, Influenza and Bronchitis ...	Pneumonia and Nephritis
Victoria ...	59	4,101	206	66	255	502	Ankylostomiasis and Malaria ...	Nephritis and Pneumonia
Mental ...	6	268	20	5	594	98	Malaria and Epilepsy ...	......
Beau Bassin Prison ...	5	164	4	5	32	41	Malaria, Abscess, Nephritis and Influenza ...	......
Barkly Industrial School...	...	23	...	...	12	...	Malaria ...	......
Moka ...	26	1,455	29	24	3	912	Appendicitis ...	Appendicitis
Total ...	454	24,048	1,125	450	1,694	4,391		

ERRATUM

Number of Beds in Civil should read 320 instead of 357
,, Moka ,, 83 ,, 3
,, Mental ,, 22 ,, 594
Total ,, should be 1165, instead of 1694.

At line 9, add "Infirmary for Physical Diseases," (after Mental).

[To face page 14.

VIII—Prisons and Reformatories

There are two prisons in the Colony, one at Beau Bassin, the other in Port Louis. The Industrial School for juvenile delinquents is at Beau Bassin

The health of the prisoners has been good, and no epidemics of disease occurred during the year.

The diet issued to prisoners is adequate and no deficiency diseases have been recorded

IX.—Meteorology

49. The Director of the Observatory has kindly furnished the following table.

METEOROLOGICAL RETURN FOR THE YEAR 1928

From the records of the Royal Alfred Observatory 178 feet above sea level.

	Temperature °C.					Humidity	Rainfall	Winds		Remarks
	Mean of Daily Minima on Grass	Mean of Daily shade Maxima	Mean of Daily shade Minima	Mean daily Range	Mean	Mean percentage	Amount in inches	Resultant Direction	Mean recorded speed m.p.h.	
January ...	20.9	30.4	22.9	7.5	26.3	75.8	3.83	E.	2.65	Highest Max 33.3 on Jan. 21st.
February ...	21.8	29.6	23.5	6.1	26.3	83.8	14.41	E. by S.	3.05	
March ...	19.7	28.5	22.3	6.2	25.1	81.3	6.47	S.E.by E.	3.44	
April ...	18.6	27.5	21.9	5.6	24.5	81.4	5.35	E. by S.	3.76	Highest hourly wind 11.0 m.p.s. on 18th.
May ...	16.7	25.9	20.1	5.8	22.8	83.9	14.90	E. S. E.	3.19	Greatest daily rainfall 207 mm. on 18th.
June ...	12.4	24.1	17.1	7.0	20.4	75.9	1.22	S.E.by E.	3.28	Lowest shade minimum 12.4 on 13th.
July ..	14.4	23.6	17.5	6.1	20.1	80.8	2.15	S.E.by E.	3.59	
August ...	13.3	23.4	17.0	6.4	19.8	76.0	1.12	S.E.by E.	3.97	
September ...	14.0	24.3	17.2	7.1	20.5	73.3	1.42	E. by S.	3.78	
October ...	13.2	26.3	17.1	9.2	21.5	66.8	0.60	E.	2.98	
November ...	17.4	26.9	19.6	7.3	22.9	68.8	1.05	E. by S.	4.32	
December ...	19.6	28.2	21.3	6.9	24.5	73.0	2.84	E. by N.	2.98	
Year ...	16.8	26.6	19.8	6.8	22.9	76.7	55.36	E. by S.	3.42	

50. It is my pleasant duty to thank all members of the department for their willing cooperation in the work recorded here.

J. BALFOUR KIRK.
Director.

21.2.30

APPENDIX I

ANNUAL REPORT OF THE BACTERIOLOGICAL LABORATORY FOR THE YEAR 1928

The total number of samples, articles and animals examined at the Bacteriological Laboratory during the year 1928 was 11841 as compared with 8062 in 1927. The figures for the last ten years given below illustrate the unbroken growth and progress of the Institution.

In 1919 ...	1279	examinations	In 1924 ..	4012	examinations
1920 ...	1311	,,	1925 ...	5167	,,
1921 ...	1776	,,	1926 ...	5077	,,
1922 ...	1850	,,	1927 ...	8062	,,
1923 ...	3014	,,	1928 ...	1,1841	,,

The work of the Laboratory comprised clinical examinations, medico-legal and Public Health manipulations, as well as the preparation of vaccines and research investigations.

I. CLINICAL WORK

This consisted in the examination of materials received from the Public Hospitals and Dispensaries or from private medical practitioners, for purposes of diagnosis. In the case of work done for private patients a charge is made in accordance with the laboratory scale of fees, unless the patient is declared by his medical attendant to be financially unable to pay the cost of the examination. This is then done free of any charge. A total of 6526 samples were examined under this head against 5177 in 1927. Of these 579 were cultured, and when necessary further tested by experimental inoculation. The materials examined included specimens of blood, sputum, pus, cerebro-spinal and other body fluids, faeces, urine, newgrowths, as well as throat, nasal and uterine swabs.

(1) *Blood.*—3550 samples were received as compared with 2599 in 1927.

(a) Malaria.—333 smears were examined for malarial parasites with positive results in 74, as follows:—

35 specimens showed benign tertian parasites.
23 ,, ,, subtertian parasites.
10 ,, ,, quartan parasites.
4 ,, ,, b. tertian and subtertian parasites.
2 ,, ,, b. tertian and quartan parasites.

As stated in previous reports the above cannot be regarded as a true representation of the relative distribution of the three varieties of malarial plasmodia in the Island as a whole.

(b) *Filariasis.*—Whereas in previous years materials were very rarely received for examination in connection with this particular affection, and such findings as were recorded were usually made in the course of examinations for other diseases, 431 blood smears were examined in 1928 specially for filarial embryos partly at the request of the Medical Officer of Beau-Bassin Prisons, and partly by one of our laboratory workers with the object in the latter case of determining the periodical habits of indigenous species. Microfilariæ were found in 109 of these specimens taken from individuals from various parts of the Colony, giving an incidence of 25.3%. In 100 the embryos presented the characteristics of *Microfilaria bancrofti* but the remaining 9 showed unsheathed embryos apparently belonging to a different species possibly as yet unclassified.

(c) *Typhoid and the Paratyphoid fevers.*—This group of diseases accounted for 388 samples, i.e. 80 more than in the preceding year. Of this number 340 were tested for agglutinins (Widal's) with positive results for Eberth's *Bacillus typhosus* in 150 cases. Agglutination tests for *Bac. paratyphosus A* and *B* applied to 10 samples proved negative, while out of 48 samples that were cultured 8 gave *B. typhosus* in pure culture.

(d) *Tropical Typhus.*—126 specimens of blood from cases of pyrexia of doubtful origin were tested against laboratory cultures of *Proteus X 19*. All save one exhibited only a very low, or no, agglutination titre. In the solitary case where agglutination was obtained in dilutions up to 1 : 500 of the patient's serum, the patient was subsequently reported by the medical practitioner in attendance to be suffering from a typical attack of enteric fever.

(e) *Syphilis.*—1847 samples of blood were received for Wassermann's complement fixation reaction. Clearly positive results were obtained in 488 cases (26.5%) and weakly positive ones in 61 cases. The method employed was the same as before, viz., Hecht's modification of Wassermann's original process, in which advantage is taken of the complement normally present in human blood for use in the final stages of the test. This permits of the patient's own serum being used in the place of guinea-pig's serum, after the hæmolytic titre has been determined in each individual case. The antigen is derived from ox-heart muscle freed of fat, minced and extracted with 90 o/o alcohol, and after passage through ether and acetone, according to the procedure described by Neymann. It is standardised against the serum of an undoubted case of syphilis and its activity is controlled at frequent intervals and compared with that of antigens obtained by other processes. It is discarded on the first sign of weakening and invariably after the lapse of three months.

(f) *Tuberculosis.*—Besredka's complement fixation reaction was applied in 11 cases of suspected tuberculosis. The results were positive in 8 cases.

(g) *Blood counts*:—83 differential leucocyte counts were made.

(h) *Urea and Glucose Values.*—The number of blood samples tested for their urea contents passed from 150 in 1927 to 325 in 1928. The glucose value was determined in 33 samples.

(i) *Bacteriological Examinations*—55 specimens drawn with aseptic precautions were cultured. From 8 *Bac. typhosus* (Eberth) was isolated: 4 others gave staphylococci, 2 *Bac. coli communior* and 1 a streptococcus.

(2) *Sputum.*—480 specimens were examined, mainly for the presence of Koch's tubercle bacilli, with or without the help of concentration methods. Tubercle bacilli were found in 96 or 20.5o/o. Cultures were made in 34 cases for the preparation of compound vaccines resulting in the isolation of various strains of pneumococci, micrococcus catarrhalis, streptococci, bac. septus and an unclassified diphtheroid organism.

(3) *Throat and Nasal Swabs.*—were received on 380 occasions as compared with 178 in 1927, either for diagnostic purposes or for the detection of diphtheria carriers. Except in cases where a preliminary microscopical examination leaves no doubt as to the presence of b. diphteriae, a culture on solidified ox-serum is the rule. Positive findings were reported in 81 cases. Hoffmann's pseudo-diphtheria bacillus was isolated from 5 of the swabs.

Nasal swabs from patients suspected of leprosy showed acid-fast organisms morphologically undistinguishable from Hansen's *Bac. leprae* in 8 cases.

Vincent's fusiform organism was microscopically demonstrated from 30 specimens.

(4) *Pus.*—Number of specimens 186, derived from various sources, viz., abscesses, boils, urethral and vaginal discharges. Their examination, both microscopical and cultural, usually revealed the presence of streptococci and staphylococci but gonococci were found in 2; and tubercle bacilli, bac. coli communior, and b. cloacae in one specimen each.

(5) *Cerebrospinal Fluid.*—106 samples were examined as follows:—

Leucocyte count	20	samples
Differential leucocyte count	7	,,
Glucose value	8	,,
Globulin Test	4	,,
Wassermann's reaction for syphilis with 7 positives ...	22	,,
Albumen value	22	,,

Seven specimens were cultured from one of which pneumococci were isolated and from another an unclassified diplococcus.

(6) *Pleuritic Fluid.*—8 specimens came under examination. One showed tubercle bacilli, another staphylococci. The remaining ones were sterile.

(7) *Tappings.*

(a) From testicle. One sample, showed staphylococci.

(b) From kidney. Three samples, sterile.

(c) From elbow. Two samples, bacteria free.

(d) From peritoneum. One specimen; haematoma following on a Caesarian operation. Cultures remained sterile.

(e) From knee. Three samples; all of which gave negative results as to the presence of microorganisms.

(8) *Spermatic Fluid.*—Six specimens were examined for gonococci. Two showed no bacteria; from the other four, staphylococci, streptococci and a diphtheroid bacillus were obtained either in pure or mixed cultures.

(9) *Bile.*—Of two samples collected during operation on the gall-bladder, one gave B. *typhosus* and staphylococci and the other streptococci on cultivation.

(10) *Uterine Swabs.*—From six cases of puerperal sepsis. The following organisms were found: streptococci, staphylococci, a Gram-negative bacillus unclassified and the same diphtheroid organism already referred to in this and previous reports and common in post-influenzal complications.

(11) *Conjunctival Secretion.*—From two cases previous to operation for catarract. The cultures showed staphylococci and *Bac. xerosis* respectively.

(12) *Mammary Secretion.*—A sample was received for investigation in a case of breast disease of obscure origin. The liquid proved sterile and yielded no information as to the nature of the complaint.

(13) *Gland Juice.*—Obtained by puncture in a doubtful case of adenitis. Culture negative.

(14) *Liver Juice*—A sample was submitted to Wassermann's complement fixation test with negative results.

(15) *Spleen Juice.*—A smear was received from a suspected case of plague. No plague bacilli were found.

(16) *Human Milk.*—Two specimens were chemically analysed.

(17) *Ulcer Scrapings.*—Examined in 11 cases of suspicious venereal ulcerations. In one case *Treponema pallidum* was found, in another Ducrey's bacillus and in a third *Bacillus diphtheriae* (Klebs-Loeffler) in association with pyogenic organisms.

(18) *Diseased Teeth.*—Eleven specimens were examined after extraction. The roots showed streptococci in all but one. In 8 the streptococci were in pure culture, but in two specimens they were associated with Vincent's bac. fusiformis and staphylococci respectively. The odd tooth exhibited no bacterial infection.

(19) *Faeces.*—Total number of specimens 953 against 911 in the year previous. Amoebae were present in 97 (*E. histolytica* 52, *A. coli* 42, *E. nana* 1, undetermined 2). The stools contained a variety of other parasites in the *adult* or *active* stage or in egg-form, viz:

Trichuris trichiura ...	... 646	specimens
Hookworm ...	... 260	,,
Ascaris lumbricoides ...	... 219	,,
Blastocystis ...	... 216	,,
Giardia intestinalis ...	... 72	,,
Tetramitus mesnili ...	... 21	,,
Trichomonas ...	... 19	,,
Clonorchis sinensis ...	... 16	,,
Strongyloides hominis ...	... 16	,,
Spirilli ...	... 5	,,
Schistosoma haematobium ...	... 1	,,

It is not the first time that *Clonorchis sinensis* is seen in Mauritius. In his report on Communicable Diseases in Port Louis (p. 16) Dr. Andrew Balfour refers to the discovery of that trematode in the island by Dr. Mac Gregor in 1874, but the characteristic eggs had apparently not again been observed locally until a sample of stools came for examination towards the end of 1928 from a patient of the Chinese Hospital, Port Louis. Further investigations among the chinese community led to the discovery of other carriers all of whom were born in China but had resided for variable periods of time in Mauritius. The subject will be dealt with in greater detail in a special report under preparation.

19 specimens of stools were cultured but the results revealed nothing special. From one sample, however, an unclassified salmonella was isolated and from another *B. asiaticus* (Castellani).

In two cases tubercle bacilli were found on microscopical examination.

Weber's test for occult blood was applied to one sample and Adler's test to another, while Sabli's method for the detection of urobilin in faecal matter was employed once with success.

Eggs of *Schistosoma haematobium* were found in one case. It could not be definitely determined whether their presence was due to accidental admixture with urine or whether the eggs had been passed with the stools, but the not unfrequent discovery of eggs of that trematode in the tissues of the Appendix Vermiformis after appendicectomy lends support to the view that intestinal bilharziasis of that type may occasionally be met with in the Colony.

(20) *Urine.*—694 analyses were made as compared with 552 in 1927. They consisted principally in the usual clinical procedures, chemical and microscropical, but in 131 cases the centrifuged sediments of samples collected with aseptic precautions were cultured with the following results:

Bacillus coli communis (Escherich)	was isolated	from	29	samples.
,, *communior*	,,	,,	11	,,
Staphylococci	,,	,,	15	,,
Streptococci	,,	,,	10	,,
Proteus asiaticus	,,	,,	5	,,
B. acidi lactici	,,	,,	4	,,
B. lactis aerogenes	,,	,,	2	,,

Other organisms found included *B. pyocyaneus*, the diphtheriod bacillus already referred to and *B. paracoli.*

Examination of the sediments also showed :

Hyaline casts in	55	specimens
Granular casts in	17	,,
Cellular casts in	4	,,
Eggs of *Schistosoma haematobium* in	53	,,
Spermatozoa in	3	,,
Gonococci in	2	,,
Trichomonas in	2	,,
Microfilariæ in	1	,,

(21) *Organs and Pathological Growths.*—97 specimens were cut and examined. True neoplastic formations were found in 42 cases. They consisted of :

Squamous epithelioma	19	specimens
Sarcoma	7	,,
Adenocarcinoma of uterus	3	,,
Medullary carcinoma of ovary	1	,,
,, ,, appendix vermiformis ...	1	,,
Scirrhus cancer of breast	3	,,
Angiomatous endothelioma of scalp... ...	1	,,
Fibromyoma	1	,,
Ovarian cysts	2	,,
Fibroadenoma of breast	1	,,
Fibroma (ear, forehead)	2	,,
Lymphoid papilloma of mouth	1	,,

Five (4 from uterus and one from urethra) of the 19 specimens of squamous epithelioma showed eggs of *Schistosoma haematobium,* so intimately involved in the new formations as to strongly suggest a causal relationship. The same eggs were also found in five vermiform appendices removed for appendicitis.

Among the other specimens one turned out to be an accessory thyroid and another an accessory spleen.

II.—VACCINES

A. *Prophylactic Vaccines.*—Antityphoid preventive vaccine (Wright-Leishman) and Calmette's B.C.G. vaccine against tuberculosis were regularly prepared during the year Doses of each are supplied, free on demand.

Antityphoid vaccine was issued to 285 persons during the year.

The number of infants vaccinated with B. C. G. was 2022.

At the request of the Agricultural Department 455 doses of the vaccine were issued for the injection of young bovines.

B. *Therapeutic Vaccines.*—168 auto-vaccines were prepared in 1928, showing a falling off of 20 as compared with 1927. They were made with microorganisms isolated at the Laboratory from pathological materials collected with aseptic precautions and comprised a number (18) of filtered vaccines (antivirus) prepared by Besredka's method for the treatment of b. coli cystitis, purulent otitis media, empyema, boils, and conjunctivitis.

The microorganisms were derived :

From blood viz., *B. typhosus, B. coli communior,* streptococci and staphylococci: 9 vaccines.

From urine viz., *B. coli communis* and *communior,* streptococci, staphylococci, *B. pyocyaneus, B. paracoli, B. diphtheroideus, B. lactis aerogenes, B. asiaticus* and *B. acidi lactici* ; 48 vaccines.

From sputum for the treatment of bronchitic asthma viz., *B. septus, Microc. catarrhalis,* pneumococcus, *B. diphtheroideus,* streptococci and staphylococci ; 30 vaccines.

From faeces, viz., *B. coli communis* and *B. coli communior* ; 2 vaccines.

From diseased teeth, viz., streptococci and staphylococci : 9 vaccines.

From pus, viz., gonococci, streptococci, staphylococci, *B. diphtheroideus, B. cloacae, B. coli communior* ; 26 vaccines.

From conjunctival secretion, viz., staphylococcus ; one vaccine.

From urethral discharge, viz., gonococci, *B. diphtheroideus,* staphylococci, streptococci, *B. coli communis* ; 18 vaccines.

From uterine secretion, viz., streptococci and staphylococci ; 2 vaccines.

From spermatic fluid, viz., staphylococci ; one vaccine.

From bile, viz., streptococcus , one vaccine.

From throat swab, viz., streptococcus ; one vaccine.

The preparation of polyvalent filtered vaccines (Besredka) from stock cultures of pyogenic organisms was continued and met with a fair demand (83 cases.) These vaccines appear to find a specially useful application in phlegmonous inflammations of the skin and subcutaneous tissue.

III.—PUBLIC HEALTH

A total of 915 samples of foods, drinks and drugs were analysed in the Chemistry Division during the period under review an increase of 48 as compared with 1927.

The substances examined comprised:

	No. of Samples	No. of cases	From whom received
Milk	883	883	Law Courts and Sanitary Authorities
Sodium Salicylate	1	1	Health Department
Salt	1	1	,,
Sea Water	6	1	,,
Cider	1	1	,,
Rum	2	2	Revenue Department
Tobacco	3	3	Customs Department
Flour	1	1	Health Department

In addition to the above, 14 samples of water were examined for their bacterial contents. Twelve of these were from the Mare-aux-Vacoas and the examinations were done for the monthly control of that important source of water supply. The other two samples came from prospective sources of public supply in the District of Black River.

The milk supply of the Public Hospitals was submitted during the year to a systematic control with the help of the Laboratory. Samples were received weekly from each of these insitutions for chemical analysis and regularly reported on.

Two cats were examined at the request of the Sanitary Authorities. One (dead) for plague and the other for diphtheria of which the animal was suspected to be a carrier. In both cases the results were negative.

A dead rat was also examined but no evidence of plague was discovered.

IV.—MEDICO-LEGAL WORK

The number of articles of evidence, organs, materials etc., referred for examination by the Judicial Authorities at the request of the Police and other Government Departments rose to 330 against 283 in 1927. I referred in my last report to the gradual increase that is taking place year after year in that branch for the laboratory activities and which is brought out by the following figures:

1921	148 articles
1922	179 ,,
1923	180 ,,
1924	125 ,,
1925	240 ,,
1926	272 ,,
1927	283 ,,
1928	330 ,,

These examinations were made in connection with the offences enumerated hereunder:—

Rape	148 articles	in 26 cases
Unlawful distillation	50 ,,	25 ,,
Murder	31 ,,	7 ,,
Possession of gandia	19 ,,	6 ,,
Poisoning	30 ,,	8 ,,
Sale of poisonous substance (arsenic)	1 ,,	1 ,,
Sale of explosives	20 ,,	1 ,,
Sale of cocaine	1 ,,	1 ,,
Arson	20 ,,	2 ,,
Sodomy	6 ,,	2 ,,
Cider (for alcoholic contents)	1 ,,	1 ,,
Deaths from violence	3 ,,	2 ,,

Rape was as before the offence responsible for the heaviest calls upon the Government Analyst's time, but illicit distillation came in next with 50 samples. This condition of things seemed to be connected in some degree with the new legislation regulating the sale of spirits.

It is the first time in my experience as Government Analyst that cocaine is found to be sold as a narcotic in this island along with gandia and opium. This is worthy of attention as it may prove to be the first indication of the extension to this Colony of the special drug habit which is reported to be prevalent in other parts of the world.

V.—RESEARCH

1. *B. C. G. Vaccine.*—The investigation commenced in 1925 into the prophylactic properties of this preparation against tuberculosis was continued during the year under review. The vaccine was administered to 2,022 newborn infants bringing the total number

to 4,407 up to December 31st of that year. These children belonged to all sections of the population but principally to the labouring classes and were vaccinated through the agency of the public and estate hospitals and the child welfare guild. Definite information has been obtained with regard to 1,086 out of 1,600 infants vaccinated between April 1st 1927 and March 31st 1928. Of these 1,086 children 52 were born of consumptive parents and lived amidst infected surroundings. One died of tuberculosis and 4 of affections possibly tubercular in character though not diagnosed as such, but the death rate from all causes amongst these vaccinated children was 5.89% against 13.15% for children of the same age in the whole Colony. The subject is dealt with in greater detail in a report from Mr. E. Maya, Assistant Bacteriologist, which is submitted herewith as an appendix.

2. *Filariasis.*—Sheathed and unsheathed microfilariae having been found on several occasions in blood films taken in the day time, an investigation was commenced and entrusted to Mr. L. Webb, Scientific Assistant with a view to elucidate the periodic habits of the blood filariae met with in Mauritius, more particulary of *F. bancrofti*, in view of the suggestion made by Manson Bahr (Byam and Archibald Vol. III p. 1918 and Manson's Tropical Diseases 1921 p. 590), that *F. bancrofti* when transmitted by a day-biting mosquito is capable of adapting itself to the habits of its intermediate host. Experiments were accordingly carried out with the two species of stegomyia common in this island, viz., *Aedes aegyptus* (steg. fasciata) and *Aedes albopictus*, day biters, as well as with *Culex fatigans* usually a night biter. These mosquitoes (*A. Aegyptus* 48, *A. albopictus* 24, *C. fatigans* 8,) were fed on patients in whose blood microfilariae had been found a few minutes before, but whereas fully-formed filarial larvae were readily seen in the proboscis of *Culex fatigans* after a period of fifteen days, the larvae were apparently unable to reach maturity in either species of stegomyia ; mosquitoes of these species dissected within the first few days after the infective meal showed larvae in the thoracic muscles but development was soon arrested and remains of larvae in various stages of degeneration were all that could be found after the 14th day. Similar results were reported by Mc Kenzie from Cook Islands. (Mc Kenzie, Tropical Diseases Bulletin Vol. XXIII p. 239).

In the light of these findings, mosquitoes of the class stegomyia do not appear to be active carriers of filariasis in Mauritius. On the other hand no clue has been obtained regarding the reversed periodicity, or nonperiodicity, shown by the worms in certain cases.

3. *Blastocystis.*—Much time was again devoted by the same investigator (Scientific Assistant L, Webb) to the study of the biology of this parasite which is now of so frequent occurence in the faeces examined at this laboratory. A series of tests were made to determine whether the parasite was in any way influenced by the pH reaction of the stools. Blastocysts were found to be present in 50o/o of 25 alkaline and in 51.2o/o of 36 acid stools tested. It does not appear so far that the chemical reaction of the intestinal contents has any effect on the freedom or otherwise of human beings from these parasites, although the latter seem to be distinctly affected in their morphology by the reaction of the medium. In acid stools blastocysts are much smaller, non-refractile, with an irregular dotted outline and are very different in aspect from the characteristic forms found in alkaline excreta, so different in fact that they may be overlooked by an untrained observer. Abundant cultures can, however, be obtained from these seemingly degenerated organisms if sown on a suitable medium. The most favourable medium for such cultures is a mixture of equal parts of human blood serum and Locke's solution, coagulated in slants by heating at 72°—74°C. for 2 hours and wetted with a dilution of human serum (one part) in Locke's solution (7 parts). The optimum temperature of incubation is 37°C.

4. *Lactose fermenters in Human Faeces.*—In order to throw light on the value of the *B. coli* index for the interpretation of results in the bacteriological examination of indigenous waters, an attempt was made to separate and classify the lactose fermenting, Gram negative bacilli found in samples of human faeces received at the Bacteriological Laboratory. Of 34 different organisms of this type that were isolated during the year, 25 belonged to the genus *Escherichia* and nine to the genus *Aerobacter*, but the special interest of this investigation appears to lie in the fact that 13 specimens of the *Escherichia* and 7 of the *Aerobacters* could not be brought under any of the classifications to which we have had access, Their presence in the faeces examined may no doubt have been accidental and the investigation has not been carried far enough to permit of an opinion being formed as to their relative frequency as inhabitants of the human intestine. Their discovery, however, in 100 c.c. or less of water used for drinking purposes ought to prove a useful warning of possible faecal contamination.

5. *Bilharziasis.*—The search for the local intermediate host of *Schistosoma haematobium* was continued. During the twelve months covered by this report 3,902 freshwater snails were dissected and examined for Cercariae. The snails were obtained from Plaines Wilhems River where that river skirts the towns of Quatre Bornes and Rose-Hill Beau-Bassin.

The snails belonged to the following species :

Limnea mauritiana,
Melania tuberculata,
Melania acanthica,
Paludina vivipara

Cercariae were found in 300 of these snails. They belonged to six different types (3 of which were seen at the Laboratory for the first time by Student Cantin in 1928), but none of them presented the characteristic appearance described by Leiper as special to the cercaria of *S. haematobium.*

The cercariae found have, from want of definite identification, been numbered from I to VI for purposes of reference. The following table shows the distribution of these larval trematodes in the four groups of snails examined :

Snails	No. of snails dissected	No. of snails infected	Cercariae No.					
			I	II	III	IV	V	VI
Limnea mauritiana	1,540	117	114	...	...	...	3	...
Melania tuberculata	1,895	182	...	121	53	8	...	...
Melania acanthica	67	1	...	...	...	...	...	1
Paludina vivipara	400	...	...	...	.	...	..	...
Total ...	3,902	300	114	121	53	8	3	1

From this table it will be apparent that cercaria No. II is the most common and cercaria No. I the next in order of frequency while cercaria No. VI was only found once. Moreover, Melania Tuberculata is the snail most commonly infested, serving as host for three different cercariae and *Limnea mauritiana* comes next with two of those larval forms, whereas *Paludina vivipara* is apparently an unsuitable host for any of them.

Prolonged search for fork-tailed cercariae in fresh-water snails taken from waters believed to be heavily infested having met with complete failure, it was decided to reverse the process of investigation. For that purpose young monkeys of the local breed (*Macacus cynomolgus*) were procured and after their urine and faeces had been shown to be free from bilharzia ova, water heavily loaded with active cercariae of types Nos. I, II, and IV was kept in contact with the animal's shaved skin for fifteen minutes. From that time onwards for three months the urine and stools of these animals were daily examined microscopically for bilharzia eggs with negative results.

Again, snails obtained from waters believed to be free from infestation were kept for more than three months in water mixed with freshly passed urine containing eggs of *Schistosoma haematobium.* A few snails were taken out at short intervals and dissected. No infestation was detected in any of them.

These studies were made with the special assistance of student L. Cantin, who showed great diligence and industry in attending to the numerous dissections and examinations they entailed.

VI.—ADMINISTRATION

Mr. Avice du Buisson proceeded to England on leave of absence on July 5th, and was replaced as Laboratory Assistant by third year student Brunel whose studentship was not filled up.

Fees collected at the Laboratory for work done for private parties amounted to Rs. 8833.77 Cs. against Rs. 8265.47 in 1927.

A further sum of Rs. 1397.18 was paid direct to the Treasury for Laboratory dues, bringing the total earnings for the year to Rs. 10649.95.

L. G. BARBEAU,
Superintendent Bacteriological Laboratory.

December 23rd, 1929.

APPENDIX II

REPORT ON THE HOOKWORM BRANCH FOR THE YEAR 1928

1.—ORGANIZATION AND STAFF

During the year under review no change is to be recorded either in the organization of the campaign or in the Establishment of the Branch.

In January the central office was transferred from Port Louis to Curepipe. The situation of the new office, in the centre of the town has greatly helped our propaganda as any passer-by has his attention naturally attracted and every class of the population has the opportunity of studying our work.

2.—EXTENT OF OPERATIONS

Besides dispensary and school work carried out in Curepipe all the year round, three districts have been successively attended to:

The campaign in Flacq was started in November 1927 and closed on June 30th, 1928. That in Grand Port opened on July 1st and whilst therapeutic work was being carried out in that district, a survey was started in Savanne on the 15th of November.

Full details regarding examination and treatment will be found tabulated in the statistical report; but the results achieved may be summarized as follows:—

	Examination	Treatment
Curepipe	3,774	2,944
Flacq	9,830	18,689
Grand Port	14,953	11,072
Savanne	4,333	...
Total ...	32,890	32,705

The total number of treatments given exceeds that for the previous year by 14,605.

Also 5,004 patients applied for a second or third treatment as against 1,819 in 1927.

This is clear indication that the population, as a whole, is becoming more alive to the dangers of hookworm disease and realizes the benefit derived from the treatment.

3.—MICROSCOPIC EXAMINATION

The Willis flotation method has been employed throughout the year and the following percentages of infection obtained:

Curepipe Office ...	54.3%	(all classes of community)
Flacq ...	73.6%	(chiefly labouring population)
Grand Port ...	69.8%	„ „ „
Savanne ...	70.2%	„ „ „

For reasons explained in the last annual report, 20% should be added to the above figures in order to obtain the true rate of infection in the districts, under review; this, therefore, stands thus:

Curepipe Office ...	74.3%	Grand Port ...	89.8%
Flacq ...	93.6%	Savanne ...	90.2%

Neither in the field nor at the dispensary is it possible to examine the bulk of the stools after treatment to ascertain whether hookworms have been passed by those patients pronounced as negative by the microscope; but special attention has been paid during the year to Ascaris infection in which the worms expelled are easily noted by the patient. It has been observed that quite a large number of patients passed from 10 to 100 Ascaris although no eggs were found on preliminary microscopic examination. This fact confirms the statement that microscopic examination of but one specimen cannot be relied upon to determine the true rate of infection of a community.

4.—TREATMENT

The drugs used are:

(1) Oil of Chenopodium
(2) Tetrachloride of Carbon.

The mixture of the two drugs in the proportion of:

Oil of Chenopodium ...	1 part
Tetrachloride of Carbon ...	2 parts

that used to be given to children has been abandoned as it was found that the liability to toxic symptons was greater than when either drug was given separately.

5.—GENERAL REMARKS

The last district to be dealt with according to the programme laid down by the representatives of the International Health Board was Flacq where work was completed on June 30th, 1928.

The systematic survey of the Colony has revealed the following percentage of infection :

Upper and middle classes ...	35 %
Labouring classes ...	90 %

Hookworm disease is unquestionably a veritable blight in Mauritius. It saps the strength of the labouring classes and has brought about a marked degeneration of the race. It is a most important factor in both the morbidity and the death rate of the Colony and in the writer's opinion it greatly favours alcoholism.

The question of the modalities of fighting hookworm disease is limited to :

(1) Soil Sanitation
(2) Treatment

but *education* underlies these modalities and without efficient propaganda no hope can be entertained even to minimize the effects of the disease. Under the best circumstances sanitation, in Mauritius, still has before it years of work before it can hope to save the situation. In my opinion no doubt exists that mass treatment is the only means from which immediate results can be expected.

A. L. D'ARIFAT,
Medical Officer in charge, Hookworm Branch.

HOOKWORM CAMPAIGN WORK MAURITIUS—FOR THE YEAR 1928

	Census	Classification by Age																Total		
		0–5		6–10		11–20		21–30		31–40		41–50		51–60		Over 60				
		Examined	Infected	Examined	Infected	Examined	Infected	Examined	Infected	Examined	Infected	Examined	Infected	Examined	Infected	Examined	Infected	Examined	Infected	Infection
																				%
Central Dispensary	6,813	700	256	1,245	687	732	439	435	259	352	210	172	108	103	68	35	24	3,774	2,051	54.3
Flacq	20,797	1,589	1,119	1,726	1,198	1,955	1,458	1,781	1,359	1,407	1,051	844	636	386	305	142	113	9,830	7,239	73.6
Grand Port	26,851	2,273	1,560	2,772	1,884	3,032	2,088	2,820	1,979	1,942	1,401	1,238	899	622	453	254	185	14,953	10,449	69.8
Savanne	7,975	657	453	614	409	873	607	904	643	596	436	427	309	195	141	67	47	4,333	3,045	70.2
Total ...	62,436	5,219	3,388	6,357	4,178	6,592	4,592	5,940	4,240	4,297	3,098	2,681	1,952	1,306	967	498	369	32,890	22,784	69.2

	Classification by Race								Other Helminths					Treatments					Re-examination after treatment									
	Mixed		Indian		Chinese		White												1		2		3		4		Total	
	Examined	Infected	Examined	Infected	Examined	Infected	Examined	Infected	Ascaris	Tricho	Strongy	xyuris	Tænia	First	Second	Third	Fourth	Total	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative
Central Dispensary	1,435	684	1,849	1,246	61	20	429	101	1,874	1,117	15	57	4	2,582	216	108	38	2,944	1	2	12	14	18	28	6	5	37	49
Flacq	1,928	1,372	7,840	5,839	42	25	20	3	1,765	219	63	7	4	15,450	2,939	289	11	18,689	195	561	42	274	5	17	...	...	242	852
Grand Port	3,083	2,097	11,820	8,323	35	26	15	3	2,976	406	85	27	1	9,669	1,312	88	3	11,072	...	...	...	1	...	...	1	...	1	1
Savanne	332	211	3,976	2,824	25	10	...	...	935	137	17	4	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...
Total ...	6,778	4,364	25,485	18,232	163	81	464	107	7,550	1,879	180	95	9	27,701	4,467	485	52	32,705	196	563	54	289	23	45	7	5	280	902

APPENDIX III

PORT LOUIS ANNUAL REPORT FOR 1928

I was appointed Acting M.O.H. on the 7th September 1928 when I took over the duties from Dr. Kirk.

1.—Administration

The Sanitary Staff is being reorganised and its number was reduced by the transfer of one Inspector and two Sanitary Guards who were not replaced. The existing personnel now consists of one Chief Inspector, four Inspectors and seven Guards.

The post of Plague Storekeeper paid on other Charges was abolished and a Storekeeper, Port Louis Sanitation, was appointed on the permanent Establishment.

2.—Public Health

No Epidemics were recorded during the year, but the number of deaths for 1928=1,739 was larger than that for 1927=1,484. The death rate for 1928 was 32.1, whilst that for 1927 was 27.7. The birth rate was 38.4 for 1928 and 36 for 1927.

INSECT—BORNE DISEASES.

MALARIA

The number of deaths due to malaria and malarial cachexia as reported by the Registrar General was 167.

A costalis is the chief transmitter in Port Louis and the three common species of parasites were detected.

INFECTIOUS DISEASES

The number of cases of notifiable Infectious and Contagious Diseases which occurred during the year 1928 is as follows :

Disease	No. of cases notified.
Diphtheria	10
Enteric fever	29
Erysipelas	9
Puerperal Sepsis	13
Tuberculosis	124
Measles	nil
Scarlet fever	nil
Plague	nil

In the case of enteric fever, the infection never took an epidemic form. As usual there has been no evidence to incriminate either water or milk as vehicles of the infection.

A stock of Widal tubes for the collection of blood in suspicious cases and of throat swabs is now kept at the office of the M.O.H. for the use of medical practitioners.

The Puerperal State, Puerperal Septicaemia and Fever.

31 deaths were registered as being due to the puerperal state and classified as follows :

Disease	General Population	Indian Population
Uncontrollable vomiting	1	...
Puerperal Haemorrhage	2	5
Other accidents of Childbirth	3	6
Puerperal Sepsis	2	8
Puerperal Embolism and sudden death	1	...
Puerperal Albuminuria	1	6
Puerperal Convulsions	1	2
Total	11	27

VITAL STATISTICS

The area of Port Louis is 16 square miles and its estimated population on the 31st Decembr was 54,464, against 54,114 on the 31st December 1927.

The birth rate was 38.4 for 1928 and 36 for 1927.

The death rate was 32.1 in 1928 and 27.7 in 1927.

INFANTILE MORTALITY

The infantile mortality rate for 1928 was 139.4; and the number of still births was 148 as compared with 171 in 1927 showing a decrease of 23. The deaths under 5 years were distributed as follows :

MALES

Ages at death

		0 to 1 year	1 to 2 years	2 to 3 years	3 to 4 years	4 to 5 years	Total
General population	...	76	33	15	13	9	146
Indian population	...	83	22	11	6	2	124
		FEMALES					
General population	...	61	32	21	12	9	135
Indian population	...	70	19	6	6	8	109
Total	...	290	106	53	37	28	514

3.—Hygiene and Sanitation

PREVENTIVE MEASURES

EPIDEMIC DISEASES

Plague

The last case of human plague was notified on the 16th September 1927 and no infected rat has been detected since the 28th January of the same year. Anti-plague work is, however, still being systematically carried out in the town : 337 dwellings were made rat proof and periodical claytonisation of gunny-bag and grain stores was done. 24,872 male and 32,638 female rodents were trapped by the gang of Ratcatchers ; of this number, 43,108 were examined microscopically and found free from plague.

503 gravid females were caught. The total number of the young was 2,202 giving a fecundity index of 4.36, as compared with 5.93 for 1927.

2.151 rats were chloroformed and 4.699 fleas collected.

Malaria

In the intra-urban area, the anti-mosquito campaign is steadily pursued; but difficulty is experienced in eradicating breeding places owing to the presence of defective roof gutters, ill-paved yards, ruinous masonry work, as well as the general use of "bassins" (water reservoirs) which the intermittent system of water supply renders necessary.

186,331 feet of existing drains and water courses were upkept by the gang of cantonniers. In addition, extra work had to be done to repair the damage caused to anti-malarial works by an unprecedented flood in the month of May. 1.283,373 cubic feet had to be filled in and drains were recanalised over an area of 2,360 square feet.

The half mile belt was upkept by a special gang of labourers and cactus (*Opunthia monocantha*) was cleared over a considerable portion of Monneron Hill and Spear Grass Peak.

In this connection, I may state that the method of destruction of cactus by inoculation of the plant with the Arsenite of Soda preparation does not appear to be superior to spraying with the same mixture : the end-results of both methods are in my opinion equally satisfactory ; spraying is however to be preferred since manual labour is thus reduced to a minimum whole clumps of cactus can be dealt with at one operation and the resulting costs of clearing materially reduced. Dr. Kirk worked out that the average cost of clearing by the inoculation method was Rs. 106 per acre, while the usual way of cutting down cactus and burning costs Rs. 400 per acre.

A new method of getting rid of *Opunthia monocantha* in the half mile belt was tried by means of a parasite, the *Dactylopius tomentosus* which was recently introduced into this colony by the Department of Agriculture. Several Clumps of cactus were infected by me with the help of Sanitary Inspector Harter, but it is still too premature to discuss the result of this new process.

Infestation of other clumps at considerable distances from those where the parasites were first implanted has, however, been detected and these have propagated considerably in spite of severe onslaughts by ants.

GENERAL MEASURE OF SANITATION

NIGHT SOIL AND CONSERVANCY

Sewerage work was continued during the year and 316 more closets were built and connected with the sewers, with an equivalent reduction in the number of pail latrines. Within the recently sewered area, there is still a fair number of premises which were not connected with the sewerage system, mainly on account of their low rateable value.

The Harbour Engineer was authorised to build closets for the use of his labourers. The sewage is subjected to Septic tank treatment and the effluent discharged into the harbour, as it was found impossible to connect the closets with the town sewers.

There are still 2,582 pail latrines in the urban area under the care of the Sanitary Department. The night soil from these used to be disposed of by tipping into the outfall sewer at Cassis on the Western side, and into the Paul and Virginie septic tank on the Eastern Side. Early in July it was found that the septic tank which had been brought into use in 1923 was out of action on account of the accumulation of sludge therein. It was therefore closed and all the night soil was dispossd of at the Cassis tipping chamber.

The work of cleaning the tank was undertaken by this Department on the 21st September 1928 and was completed in 46 days. About 56,000 gallons of sludge were removed.

The use of motor vans for the collection of nightsoil was pretty satisfactory though one must confess that they are not water-tight and that spillage occurred on several occasions.

COLLECTION AND DISPOSAL OF REFUSE.

The town refuse collected daily by the Sanitary Department is used for the filling of depressed areas in Cassis and Roche Bois. Eight lorries and twenty trailers are employed for this purpose. 11,732 tons of refuse were thus removed from the town during the year while 246,000 cubic feet of land were reclaimed at Cassis, and 70,000 cubic feet at Roche Bois.

WATER SUPPLY

There are four sources of supply to Port Louis i.e.

1. Grand River North West at a dam called "La Digue" whence the water is conveyed by two water mains known as the Municipal and Rectification Canals.

The supply from the Municipal canal is crude Grand River North West water and is stored in the Monneron Hill reservoir; while that from the Rectification Canal is first passed through a scrubbing filter at the Pailles chlorination plant, and stored in the Signal Mountain reservoir. Close to the latter reservoir there is a junction between the two mains which could thus be connected in case more water than that stored in either reservoir were needed to extinguish fires in the town.

Both supplies are intermittent.

2. Grand River North West at a spot nearer to the sea than the "Digue" where the Dayot Canal starts. The Cassis District alone is supplied by this canal, which ends at a small washing place in Redoute street. The remaining part up to Pouce street is now dry.

3. Mare aux Vacoas. This is a filtered and constant water supply, but the service is available only for a very limited number of persons. It is now supplied to shipping.

4. Calebasses River. The water impounded by a dam near Bois Marchand Cemetery is supplied to the Abattoir, Ste. Croix Terre Rouge and Part of Roche Bois.

5. Lataniers River. The water is supplied to Vallée des Prêtres by a pipe which is fed from a dam close to the river source.

The scheme of chlorinating the water supply of Port Louis by means of Paterson's Chloronome has been brought forward again. There is every likelihood that the number of scrubbing filters at the Pailles Chlorination Plant will be increased next year to allow of subsequent chlorination, so that filtered chlorinated water will be substituted for the crude impure water which 95% of the inhabitants of Port Louis are obliged to consume.

HOUSING

The housing problem in Port Louis is still acute, and the present financial crisis was against the efforts of private enterprise to provide more sanitary housing.

The attempt of Government to relieve congestion in the town by means of Bell Village and the Model Village in New Cut street has failed.

With regard to the slum areas, practically nothing has been done and overcrowding is still rife. The tendency of landowners is, of course, to make as much money as possible out of their property with the result that back to back houses have been erected, storeys added, and every piece of available ground built upon—with or without the permission of the Building Authority. In some instances the result has been that the building has been turned into a most appalling maze defying description and totally insanitary through ill-ventilation, bad lighting and overcrowding.

Nothing short of evacuation of premises, demolition and erection of new Sanitary Buildings will serve any useful purpose.

MATERNITY AND CHILD WELFARE

The "Oeuvre Pasteur de la Goutte de Lait" is a combined baby clinic and milk distribution centre supported by the Municipality and by a contribution of Rs. *4,800* a year from Government.

Practically no ante-natal work is done and this is probably due to the fact that the majority of the poorer classes for which it has been established is not aware of the existence of the centre.

The milk is sterilised. It is kept at a temperature of 105°C. under a pressure of 300 grms. for 45 minutes.

The "Goutte de lait" is doing remarkable work and the disinterested efforts of the Committee and the nurse in charge of the centre are to be highly praised.

TRAINING OF SANITARY STAFF

The classes of instruction have been continued throughout the year and lectures were delivered every other Thursday by the M.O.H. and the C.S.I. The latter dealt chiefly with the Elementary Mathematics of Hygiene and Practical work.

An Examination was held in May under the Auspices of the Royal Sanitary Institute and of eight candidates from Port Louis who appeared. One was successful.

CEMETERIES

The two main Cemeteries of the Town are controlled by the Municipality: The need of a mortuary at the Western Cemetery was brought to the notice of the Mayor who kindly promised to have one built.

A third Cemetery (private) belongs to the Chinese Community, but is under control of the Sanitary Department.

MARKETS

The Central Market has been considerably improved and the meat and fish sections were made fly proof.

At Plaine Verte Market, extensive repairs are being carried out.

At la Butte on the Western side of the town a new small market has been built on Modern Sanitary lines.

SLAUGHTER HOUSE

The scheme of improvements at the Roche Bois Abattoir has been started and the work is now well in hand.

DOGS AND PIGS

During the year 776 stray dogs were caught by the Police in the streets of Port Louis, 548 were painlessly destroyed. Of the remainder, a number were returned to their owners; the rest were sold.

In the Extra urban areas 36 stray pigs were shot, principally in the Northern Suburbs.

SANITARY CONTROL OF FOODSTUFFS

The following table shows the foodstuffs seized by the Sanitary Authority as being unfit for human consumption.

Foodstuffs	*Quantity*
Potatoes.	150,250 lb.
Flour.	1,600 bags.
Salted meat	52 barrels.
Lemonade	1,075 pints.

MILK TRADE

There are no cowsheds or milkshops in the Urban area, and the milk supply of Port Louis is all brought into the town from outside and purchased by middlemen from Indian cowkeepers.

Most of the milk sold is either watered, skimmed or boiled, the commonest mode of sophistication practised being the addition of water to the milk, but a vigorous campaign has been started to put an end to this state of affairs.

In the course of this work, 667 samples were taken and sent to the Government Analyst. and 253 of these were found sophisticated, 49 Offenders were prosecuted as a result of which Rs. 1,425 were inflicted as fines while two other culprits were sentenced to imprisonment for 15 days.

ANNEXURES

1. Statement showing Inspection and action taken by the Secretary Staff of Port Louis during the year 1928.
2. Diagram shewing House Service connections during the year 1928.

L. M. R. PILOT,
Acting M. O H., Port Louis.

STATEMENT SHOWING INSPECTION AND ACTION TAKEN BY THE SANITARY STAFF OF PORT LOUIS DURING THE YEAR 1928.

1.	Number of visits paid to :	1 Private premises	14,307
		2 Lodging Houses	896
		3 Shops	1,232
		4 Markets	255
		5 Bakehouses	197
		6 Slaughter houses	36
		7 Butchers shops	70
2.	Special inquiries in regard to Sanitary matters		464
3.	Control of Cremation		44
4.	Control of Exhumation		5
5.	Testing of milk, how many tests ?		13
6.	No. of stables inspected		420
7.	No. of Cowsheds ,,		641
8.	No. of Pigsties ,,		325
9.	Performance of Night Soil Service checked in how many times ?		1,980
10.	How has the work been performed ?		satisfactorily
11.	Government establishments visited, how many times ?		917
12.	Public Latrines visited, in how many times ?		879
13.	Private and gratuitous Latrines visited, how many times ?		1,048
14.	Noxious Factories visited, how many times ?		143
15.	Camps of Labourers ,, ,,		174
16.	Docks ,, ,,		118
17.	Water Courses ,, ,,		1,281
18.	Cemeteries ,, ,,		56
19.	Sea shores ,, ,,		270
20.	No. of visits paid to Wasteland in Port Louis		931
21.	Disinfection of private premises, on how many occasions ?		1,267
22.	Attendance of Sanitary Inspectors at Law court		68
23.	Dhobies workshops visited, how many times ?		161
24.	Lighters in Harbour		1,304
25.	Nuisances on private premises		3,330
26.	Notices and Requests issued		993
27.	Number complied with		667
28.	Number not complied with		625
29.	Contravention of Sanitary Enactment detected		450
30.	Cases prosecuted		68
31.	Amount of fines		Rs. 799
32.	Abatement of nuisances existing in the town		1,001
33.	Number complied with		447
34.	Number not complied with		594
35.	No. of Orders issued by Sanitary Authority for Improvement and removal of nuisances completed in Ordinance 47 of 1925		12
36.	Number complied with		9
37.	Nuisance bearing on public Health referred to Government for Action		480
38.	Scavenging Service, how performed		satisfactorily
39.	Number referred to Public Works Department		510
40.	,,	Railways ,,	25
41.	,,	Agricultural ,,	nil
42.	,,	War ,,	2
43.	,,	Forest ,,	220
44.	,,	Public Instructions ,,	4
45.	,,	Mayor of Port Louis ,,	23
46.	,,	Customs ,,	2
47.	,,	Postal & Telegraph ,,	2
48.	,,	Immigration ,,	1
49.	,,	Sanitary Engineer ,,	378
50.	,,	Drainage Engineer ,,	22
51.	,,	Government Electrician Department	1
52.	Number of premises connected to Sewerage system		316

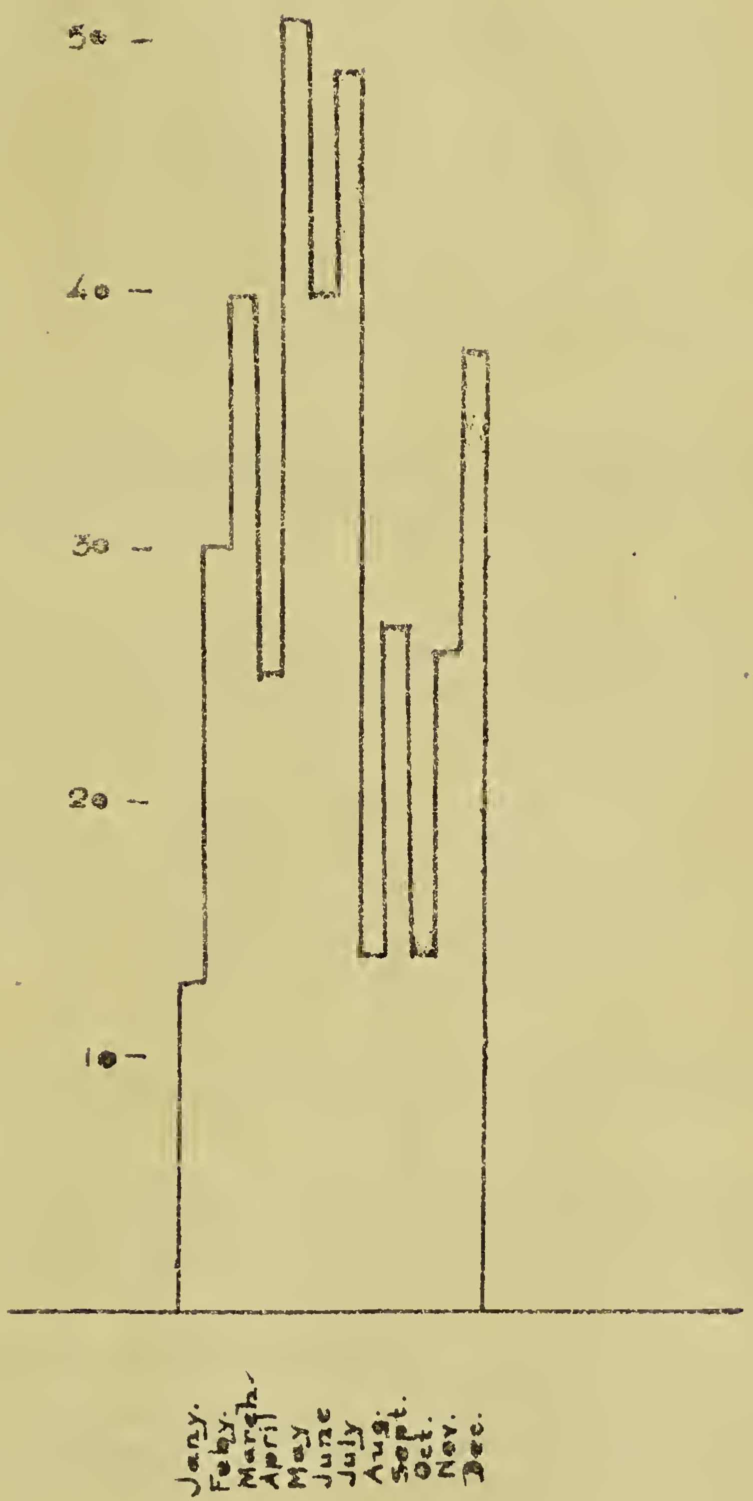


Diagram shewing
House Service Connections
DURING
1928

APPENDIX IV

REPORT ON THE MENTAL HOSPITAL FOR THE YEAR 1928

The total number of certified insane persons in the Colony on 31st December 1928 was 748, compared with 700 for 1925, 719 for 1926 and 729 for 1927.

2. The following table shows the distribution of the 748 certified insane persons in the Colony on 31st December 1928 :

	General			Indian			Chinese			Total
	M	F	T	M	F	T	M	F	T	
At Mental Hospital	170	163	333	149	90	239	15	2	17	589
On probation leave	33	46	79	37	32	69	3	...	3	151
On leave under G.N. No. 239/24 ..	2	4	6	2	...	2	...	...	...	8
Total	205	213	418	188	122	310	18	2	20	748

Included under "General" is one male European.

The percentage sex distribution of the 748 certified insane was males 54.9 and females 45.1 compared with males 56.2 and females 43.8 for the estimated population of the Island on 31st December 1927.

3. The following table gives the insane rates per 10,000 of the population of the Island calculated on the number of certified insane persons in the Colony on 31st December 1928 :

	M	F	T
General population ...	38.5	35.9	36.4
Indian population ...	12.8	9.0	11.0
Chinese population ...	27.3	8.2	22.2
Total ...	19.7	17.1	18.4

The above table shows :—

(i) Insanity is more prevalent among men than women, especially so in the case of Indians and Chinese.

(ii) The insane rate for the General section of the population is more than three times that for Indians—This marked difference in the incidence of insanity may be explained by :—

(a) Alcoholism is more rife among the General population.

(b) The Creoles being mostly of the artisan class, find more difficulty in getting work—Thus malnutrition, lack of resistance and such effects as are produced by the difficult state of the times showed itself in a very large proportion of cases.

(c) The ratio of total insane to total population was 18.4 per 10,000 compared with 18.0 and 18.1 for 1926 and 1927 respectively thus showing that no undue influences are at work in the causation of insanity.

4.—*Hospital Population*

There were 594 inmates (337 males, 257 females) in hospital on 31st December 1928. Of these, 3 males and 2 females were under interim detention awaiting examination by the Commissioners of Lunacy so that the total number of insane persons in hospital on the above date was 589—334 males, 255 females compared with 607—343 males, 264 females on 31st December 1927.

Included in the 589 certified inmates, were 14 male and 10 female paying patients.

The daily average number resident was 612 (males 349—females 263).

5.—*Criminal mental Population*

	M	F	T
In hospital on 31.12.27	12	...	12
Admitted during 1928	1	...	1
Discharged or dealt with under Article 60 of Ord. 230 of 1906	2	...	2
Died during 1928	...	...	...
Remaining on 31st December 1928	11	...	11

The criminal mental patient admitted during the year suffering from confusional insanity, was an untried male prisoner charged with larceny.

6. The following table shows the duration in hospital to 31st December 1928 of the 589 certified insane residents.

	M	F	T
1 year or less	48	41	89
Between 1 and 2 years	30	23	53
„ 2 and 3 „	29	20	49
„ 3 and 4 „	24	11	35
„ 4 and 5 „	24	19	43
„ 5 and 6 „	24	8	32
„ 6 and 7 „	13	8	21
„ 7 and 8 „	14	8	22
„ 8 and 9 „	8	10	18
„ 9 and 10 „	3	10	13
„ 10 and 15 „	31	45	76
„ 15 and 20 „	30	24	54
„ 20 and 25 „	30	12	42
„ 25 and 30 „	13	8	21
Over 30 years	13	8	21
Total	334	255	589

It will be seen from the above table that more than half the patients have been in hospital 5 years or more, the prognosis in the vast majority of these cases being hopeless.

7.—*Admissions.*

The total number of admissions during 1928 was 212 compared with 175 in 1927. These admissions were classified as follows:

	1927			*1928*		
	M	F	T	M	F	T
1st admissions	62	42	104	73	57	130
2nd „	2	5	7	5	2	7
3rd „	3	...	3	1	2	3
4th „	1	...	1	...	...	...
6th „	...	1	1	...	...	...
Readmissions from probation leave	21	14	35	23	18	41
„ from leave under G. N. No. 239/24.	19	5	24	20	11	31
Total	108	67	175	122	90	212

The following are included among the 140 persons admitted for the first, second and third times.

M	F	T	
28	15	43	admitted under interim detention and later found not to be proper persons to be kept at the Mental Hospital and accordingly released by order of Magistrate.
1	1	2	admitted under interim detention and died whilst so detained.
3	2	5	admitted under interim detention and awaiting examination by Commissioners of Lunacy on 31.12.28
32	18	50	Total not certified insane.

Hence, during 1928 there were admitted into the Mental Hospital as certified insane, a total of 90 persons (males 47, females 43) hereunder referred to as direct admissions.

8. The districts whence came the 90 direct admissions and the insane rate per 10,000 of the population of such districts are given in the following table.

Districts		Number of direct admissions	Estimated population of districts on 31.12.28 according to Registrar General's report.	Insane rate per 10,000 of population
Port Louis	...	33	54,464	6.0
Plaines Wilhems	...	25	88,050	2.8
Grand Port	...	8	51,939	1.5
Pamplemousses	...	5	37,812	1.3
Rivière du Rempart	...	9	34,251	2.6
Savanne	...	4	35,261	1.1
Moka	...	3	33,434	0.8
Black River		...	14,290	...
Flacq	...	3	55,301	0.5
Total	...	90	404,882	2.2

The above table shows that the incidence of insanity is much lower in the Agricultural districts as compared with the industrial and commercial district of Port Louis. As usual, the largest number of direct admissions came from the districts of Plaines Wilhems and Port Louis.

9 The following table shows the probable causes of insanity in the case of the 90 admissions:—

Causes		M	F	T
Fevers, Malaria, flu &c.	...	9	...	9
Unknown causes ...	...	6	4	10
Heredity ...	...	8	8	16
Alcohol ...	...	13	...	13
Epilepsy ...	...	4	4	8
Previous attacks of insanity	...	6	4	10
Dysentery ...	...	1	...	1
Mental worry and anxiety	...	10	5	15
Pregnancy ..	...	...	1	1
Syphilis ...	...	4	...	4
Domestic trouble and grief	...	3	8	11
Menopause ...	...	...	4	4
Plague ...	...	1	...	1
Business and pecuniary difficulties		4	2	6
Old age ...	...	4	3	7
Puberty ...	...	...	1	1
Privation ...	...	...	2	2
Sepsis and Pyorrhoea	...	...	1	1
Pauperism ...	...	...	3	3
Pneumonia ...	...	2	...	2
Consanguinity ...	...	...	1	1
Chronic uraemia ...	...	1	...	1
Phthisis ...	...	1	1	2
Typhoid ...	...	1	...	1

In examing this table, it must be borne in mind that one or more of the causes enumerated above may be responsible for the production of the mental disorder, hence the excess of the aggregate of such causes over the number of patients considered. As usual, fevers, heredity, alcohol, epilepsy, previous attacks of insanity, mental stress and strain are prominent etiological factors.

Alcoholism

10. Of the 13 alcoholics admitted during the year, 7 were creoles, 5 Indians and 1 chinese. In 1927 out of 9 alcoholics admitted, 6 were creoles, 2 indians and 1 chinese.

The following table gives the districts whence came the alcoholics admitted during 1927 and 1928 and the number admitted from each district:—

Port Louis	...	1	6
Plaines Wilhems	...	4	4
Rivière du Rempart	...	2	1
Savanne	...	...	1
Grand Port	...	2	...
Moka	...	...	1
		9	13

This table shows that Port Louis and Plaines Wilhems are the districts where alcoholics seem to thrive.

DISCHARGES

11. The total number of discharges during the year, was 209 as against 142 in 1927. The following table shows the classification of discharges:—

	M	F	T
Patients discharged recovered	2	1	3
,, relieved	47	34	81
,, not improved	...	2	2
Harmless dements transferred to Poor Law Infirmaries	17	27	44
Patients allowed on 4 days' leave under G. N. No. 239/24	21	13	34
Discharged by Supreme Court to proceed overseas ...	1	...	1
Alleged mental patients found sane and released ...	30	14	44
Total ...	118	91	209

The percentage of discharges (recovered, relieved and not improved) to admissions (direct admissions and readmissions from probation) was 65.6—males 70.0 females 60.6—During the year, 51 patients (males 31, females 20) on probation leave were found cured and finally discharged.

DEATHS

12. During the year, there were 20 deaths (males 13, females 7) as against 39 and 23 in 1926 and 1927 respectively. Of these deaths, 4 took place within a month of admission and were mainly due to the poor state of health of the patients admitted. The death rate calculated on the daily average number of patients resident, was 3.26% (males 3.72%, females 2.67%). The death rate for all County and Borough Mental Hospitals in England and Wales for 1927 was 7.5%.

The following table gives the number and causes of deaths during the year:—

Causes	M	F	T
Epilepsy	2	1	3
Dysentery	1	1	2
Cardiac failure	...	1	1
General paralysis of the insane ...	2	...	2
Pneumonia	1	1	2
Senility and myocardial degeneration ...	2	1	3
Helminthiasis and cardiac failure ...	...	1	1
Carcinoma Ventriculi	1	...	1
Pyopneumothorax	1	...	1
Acute cholecystitis	...	1	1
Malaria	1	...	1
Cystitis and Toxaemia ...	1	...	1
Chronic Uraemia	1	...	1
Total	13	7	20

5 post mortem examinations were made, giving a percentage of 25.0 of total deaths.

PREVALENCE OF SICKNESS

13. The following table gives the number of cases treated in both Infirmaries, the daily average of sick and the sick rate for the years 1927 and 1928:—

	1927			1928		
	M.	F.	T.	M.	F.	T
No. of cases treated in Infirmaries ...	149	85	234	153	121	274
Daily average of sick in Infirmaries ...	5.24	2.87	8.11	3.33	2.55	5.89
Sick rate per cent calculated on daily average in hospital	1.53	1.05	1.32	0.98	0.97	0.96

14. Table of monthly admissions into the two Infirmaries, total stay therein and average stay per patient for the years 1927 and 1928:

	1927				1928		
Months	M.	F.	T.	Months	M.	F.	T.
January ...	25	9	34	January ...	10	16	26
February ...	9	2	11	February ...	9	12	21
March	28	13	41	March	16	11	27
April	7	8	15	April	7	2	9
May	10	8	18	May	10	9	19
June	8	5	13	June	4	12	16
July	9	7	16	July	16	8	24
August	12	5	17	August	16	9	25
September ...	14	7	21	September ...	21	9	30
October	15	6	21	October	13	11	24
November ...	6	5	11	November ...	19	10	29
December ...	6	10	16	December ...	12	12	29
Total ...	149	85	234	Total	153	121	274
Total stay in days	1,786	1,047	2,833	Total stay in days ...	1,212	890	2,102
Average stay per patient ...	11.99	12.31	12.10	Average stay per patient ...	7.92	7.35	7.67

15. The following table shows the monthly admissions into both Infirmaries for the commoner diseases:—

Diseases	January	February	March	April	May	June	July	August	September	October	November	December	Total
Influenza	4	1	...	...	...	3	3	2	1	2	1	2	19
Malaria	7	2	9	2	3	5	3	5	4	2	4	5	51
Dysentery	3	...	...	...	...	...	...	...	1	1	1	...	6
Abscesses	...	...	...	...	...	...	1	1	1	...	1	1	5
Wounds accidental ...	1	...	...	2	1	...	...	...	2	...	...	...	6
Boils	2	...	...	...	1	...	...	...	...	...	...	...	3
Cellulitis	...	1	1	...	1	...	...	...	1	...	...	1	5
Chronic Nephritis ,...	...	...	...	...	...	...	...	...	...	1	...	...	1
Pneumonia	1	...	...	...	1	...	...	...	...	...	...	...	2
Carbuncle	...	...	2	...	...	...	...	...	...	...	1	...	3
Asthma	...	1	...	...	...	...	...	...	...	...	...	1	2
Epilepsy	2	3	7	2	2	1	11	8	7	8	9	6	66
Phthisis	2	1	...	...	1	...	...	...	...	...	...	...	4
Heart Disease ...	...	...	...	...	1	2	...	...	...	...	...	...	3
Chronic Bronchitis ...	...	...	...	...	...	...	...	...	...	...	...	1	1
General paralysis of the Insane	..	...	...	...	1	...	...	...	..	...	...	1	2

16. *Infectious and allied diseases.*

There was one case of Typhoid. Dysentery cases numbered 6 with 2 deaths.

There were 19 cases of Influenza, and 51 of Malaria during 1928. During the year 4 cases of phthisis needed active treatment—two of them were discharged on probation. At present, two patients are known to suffer from phthisis.

There were no other forms of tuberculosis among our patients.

17. *Escapes, violence, &c.*

One female patient escaped during the year and was brought back by the Police a few hours after her absence had been noticed.

There were no cases of suicide or homicide during the year.

The types and number of cases of injury sustained by our patients were as follows:—

Self-inflicted	6
Inflicted by other patients ...	47
„ by attendants ...	1
„ accidentally ...	24

All these injuries were of a trivial nature, except one: a fractured base of skull caused through a fall during an epileptic fit.

18.—*Treatment*

It is a matter of regret that many cases are sent to the hospital when their mental disorders are well established or have passed into a chronic state, but there is every reason to hope that the public will soon realise the importance of submitting the patients for treatment during the early stage of the illness when there is much probability of recovery taking place—During the year, the search for focal sepsis as a factor in the mental disease has been as in the past, a routine procedure. Such measures as the removal of toxi foci, milk diet, Stovarsol and other intestinal antiseptic were used and there is no question as to the encouraging results which this mode of treatment has produced. A case of general paralysis was treated by induced malaria followed by a course of stabilarsan but the result was anything but hopeful—probably because the patient was not a malaria free individual. In many cases of mental disorders in which Syphilis was considered to be a causative factor, either principal or contributory, Stabilarsan and Bismuth injections were given with very good results—Most of the cases had sufficiently recovered to warrant their return to outside life.

Luminal was used alone or combined with bromides in the treatment of most of our epileptic cases and equally in the treatment of various states of increased nervous instability with good results.

19.—*Occupational Therapy.*

The value of occupational treatment as a factor in the improvement of most of the psychotics is well known. It aims by stimulating and holding the interest of the patient, to dissipate explosions of excitement to check excessive motor activity or accumulated energy which may discharge itself in delusions, hallucinations or become invested upon some postural altitude. Closer attention is being given to this form of treatment and during the year the ordinary institutional occupations in the kitchen—gardens, wards, airing ground, laundry gave employment daily to an average of 103 males and 83 females.

No proper workrooms are yet available, but it is hoped that this will be remedied in the near future. The estimated value of work done by patients during the year was Rs. 14,091.36.

20.—*Restraint and Seclusion.*

Mechanical restraint—leather wristlets and strong dresses—was resorted to in the case of 8 male and 7 female patients and seclusion in the case of 2 men and 22 women.

21.—*Recreation.*

During 1928, the Police Band played ten times at the hospital—Two "treats" were given consisting of cakes, fruit, lemonade and other delicacies, and followed in one case by a cinematograph performance—Gramophone music is played during the week and always on Sundays, cards, draughts, dominoes, chess, loto are favourite games—A few of the male patients play foot-ball on the grounds of the hospital—French and English papers and periodicals were sent us by people interested in the welfare of our patients, but the numbers received were far below our requirements. We would be very grateful if more kind-hearted persons could send us their old papers and magazines, especially the illustrated ones. The piano in the female department was occasionally used by patients, their friends and relatives.

22.—*Cost of Maintenance*

The items making up the average weekly cost, per head, are given in the following table for the period 1st July 1927 to 30th June 1928.

		Rs. Cs.
Provisions, fuel, light, not including Institution garden produce...		129,949.92
Personal Emoluments ...		95,324.32
Clothing, bedding, uniforms, washing requisites ...		28,903.79
Surgery and dispensary approximately ...		5,000.00
Implements, stores and sundries ...		3,291.65
Fees for District Commissioners of Lunacy ...		1,680.00
„ for member of Central Board ...		252.00
Recreation for patients ...		998.82
Telephones ...		230.00
Travelling and Transport–aproximately ...		387.52
Total		266,018.02
Less fees received from private patients : Rs	8,687.00	
„ sale price of refuse food : Rs	500.00	
	Less	9,187.00
Net total expenditure		256,831.02
Average weekly cost per head ...		7.84

23.—*Staff Changes*

On 1st February 1928, Warder H. de Cazanove resigned his post and was replaced by Warder U. Babet from Souillac Hospital on 5th March 1928. During the year. Nurses Loizeau, Silson, Grec and Warders Grenouille and Babet were confirmed in their respective posts.

On 1st July 1928. Mr. E. Letimier vacated the Post. of Steward and Accountant on transfer to Civil Hospital as Pharmacist. and was replaced by Mr. A. Lebon. the Head Warder of Civil Hospital.

On 3rd July 1928, Mr. D. Davis, our Storekeeper and Dispenser, was promoted Head Attendant and was replaced by Mr. N. Cimiotti, the Senior Warder.

Miss L. d'Avray was appointed Nurse on 12th March 1928.

Acting Warder R. Miniamah was transferred to Flacq Hospital on 20th April 1928.

24.—*Visits.*

His Honour the Officer Administering the Government visited the Hospital on 22nd February 1928 and 31st March 1928, and was accompanied by the Honourable The Acting Colonial Secretary, the Honourable The Medical Director and the Honourable The Member for Plaines Wilhems.

On 6th September 1928, His Excellency the Governor visited the Hospital in company of the Assistant Colonial Secretary, the Honourable The Medical Director and the Honourable The Director of Public Works.

On 13th August 1928, the Acting Colonial Secretary visited the Hospital chiefly with a view to ascertaining the necessity of further expenditure on construction to be made to the Hospital.

The Institution was also visited by the Bishop of Mauritius, the Honourable Members for Port Louis, and the Harbour Engineer, Mr. Austin, on different occasions.

On 17th October 1928, the members of the Commission of Enquiry on the Medical and Health Department made a general inspection of the Hospital and its Barkly annexe.

During the year, the Central Board of Commissioners of Lunacy held 12 meetings at the Hospital and, on each occasion, visited the Institution. Two Boards of Survey were held and our accounts and stores were checked twice by the Financial Assistant, Medical and Health Department and thirteen times by an Audit Inspector.

No irregularities were detected.

25.—*Religious Services*

During the year, Mass was said on five occasions and an average of 38 patients attended each time. The question of building a new Roman Catholic Chapel is still under consideration.

The Reverend Mr. Duff paid several visits during the year to the few patients belonging to the church of England.

26. To conclude, I wish to thank the Honourable The Medical Director and the members of the Central Board for their valuable assistance in improving the welare of our patients.

L. R. COMTY,

12th March, 1929

M.B.B.S. (London) M.R.C.S. (Eng.)
Ag. Medical Superintendent Mental Hospital.

RETURN OF DISEASES AND DEATHS (IN PATIENTS) FOR THE YEAR 1928.

DISEASES	Remaining in Hospital at end of 1927	Yearly Total		Total cases treated	Remaining in Hospital at end of 1928
		Admissions	Deaths		
Epidemic, Endemic and Infectious Diseases					
1. Enteric Group—					
(*a*) Typhoid Fever	1	40	11	41	2
(*b*) Paratyphoid A.	...	...	...	...	...
(*c*) Paratyhoid B.	...	...	...	...	...
(*d*) Type not defined	...	14	9	14	...
2. Typhus	...	...	...	...	...
3. Relapsing Fever	...	...	...	...	...
4. Undulant Fever	...	...	...	...	...
5. Malaria—Quotidian	3	280	9	283	...
(*a*) Tertian	8	1,158	6	1,166	13
(*b*) Quartan	7	554	4	561	1
(*c*) Aestivo-autumnal	...	97	...	97	...
(*d*) Cachexia	3	247	36	250	...
(*e*) Blackwater	1	121	2	122	...
(*f*) Irregular	1	44	...	45	3
(*g*) Not specified	...	670	...	670	3
6. Measles	...	...	...	...	...
7. Scarlet Fever	...	...	...	...	...
8. Whooping Cough	...	1	...	1	...
9. Diphtheria	...	20	5	20	1
10. Influenza	28	902	29	930	7
11. Miliary Fever	...	...	...	...	...
12. Mumps	...	1	..	1	...
13. Cholera	...	...	...	...	...
14. Epidemic diarrhoea	...	...	..	...	...
15. Dysentry—					
(*a*) Amœbic	9	682	40	691	10
(*b*) Bacillary	...	3	...	3	...
(*c*) Undefined or due to other causes	4	110	...	114	...
16. Plague—					
(*a*) Bubonic	...	...	...	...	...
(*b*) Pneumonic	...	...	...	...	...
(*c*) Septicaemic	...	...	...	...	...
(*d*) Undefined	...	...	...	...	...
17. Yellow Fever	...	...	...	...	...
18. Spirochaetosis ictero-hæmorrhagica	...	...	...	...	...
19. Leprosy	...	3	...	3	...
20. Erysipelas	...	27	7	27	...
21. Acute Poliomyelitis	...	1	...	1	...
22. Encephalitis Lethargica	...	...	...	...	...
23. Epidemic Cerebro-spinal Fever	...	...	...	...	...
24. Other Epidemic Diseases—					
(*a*) Rubeola (German Measles)	...	...	...	...	...
(*b*) Varicella (Chicken-pox	...	5	...	5	...
(*c*) Kala-azar	..	...	...	...	...
(*d*) Phlebotomus Fever	...	...	...	...	...
(*e*) Dengue	...	1	...	1	...
(*f*) Epidemic Dropsy	...	...	...	...	...
(*g*) Yaws	...	...	...	...	...
(*h*) Trypanosomiasis	...	...	..	...	...
25. Glanders	...	...	...	...	...
26. Anthrax	...	7	...	7	...
27. Rabies	...	...	...	...	...
28. Tetanus	...	23	12	23	1
29. Mycosis	...	1	1	1	...
30. Tuberculosis, Pulmonary and Laryngeal	14	949	150	963	34
31. Tuberculosis of the Meninges or Central Nervous System	...	3	1	3	...
32. Tuberculosis of the Intestine or Peritoneum	...	19	5	19	...
33. Tuberculosis of the Vertebral Column	1	11	1	12	...
34. Tuberculosis of Bones and Joints	1	27	1	28	1
Carried over	81	6,021	329	6,102	76

DISEASES	Remaining in Hospital at end of 1927	Yearly Total		Total cases treated	Remaining in Hospital at end of 1928
		Admissions	Deaths		
Brought forward ...	81	6,021	329	6,102	76
35. Tuberculosis of other organs ...					
(*a*) Skin or Subcutaneous Tissue (Lupus)	1	...	...	1	1
(*b*) Bones ...	...	11	...	11	...
(*c*) Lymphatic System ...	...	18	...	18	...
(*d*) Genito-urinary ...	...	27	...	27	1
(*e*) Other Organs ...	...	1	...	1	...
36. Tuberculosis disseminated—					
(*a*) Acute ...	...	4	...	4	1
(*b*) Chronic ...	...	...	...	...	...
37. Syphilis—					
(*a*) Primary ...	1	86	...	87	6
(*b*) Secondary ...	1	47	...	48	1
(*c*) Tertiary ...	4	55	...	59	1
(*d*) Hereditary ...	...	28	6	28	8
(*e*) Period not indicated ...	1	110	2	111	3
38. Soft Chancre ...	...	47	...	47	3
39. A.—Gonorrhoea and its complications ...	7	249	...	256	3
B.—Gonorrhoeal Ophthalmia ...	...	15	.	15	2
C.—Gonorrhoeal Arthritis ...	...	4	1	4	...
D.—Granuloma Venereum ...	...	1	...	1	1
40. Septicæmia ...	...	6	5	6	...
41. Other Infectious Diseases ...	...	7	1	7	...
Filariasio ...	1	49	10	50	4
II.—General Diseases not mentioned above					
42. Cancer or other malignant Tumours of the Buccal Cavity ...	...	11	...	11	1
43. Cancer or other malignant Tumours of the Stomach or Liver ...	1	18	7	19	...
44. Cancer or other malignant Tumours of the Peritoneum Intestines, Rectum ...	2	9	...	11	1
45. Cancer or other malignant Tumours of the Female Genital Organs ...	...	62	7	62	5
46. Cancer or other malignant Tumours of the Breast ...	1	13	2	14	2
47. Cancer or other malignant Tumours of the Skin ...	...	5	1	5	...
48. Cancer or other malignant Tumours of Organs not specified ...	...	16	4	16	...
49. Tumours non-Malignant ...	1	63	3	64	...
50. Acute Rheumatism ...	1	167	...	168	8
51. Chronic Rheumatism ...	...	306	1	306	2
52. Scurvy (including Barlow's Disease) ...	2	3	1	5	...
53. Pellagra ...	...	...	...	...	...
54. Beri-Beri ...	...	2	...	2	...
55. Rickets ...	...	6	1	6	...
56. Diabetes (not including Insipidus) ...	3	44	7	47	...
57. Anæmia—					
(*a*) Pernicious ...	...	10	1	10	...
(*b*) Other Anæmias and Chlorosis ...	1	152	4	153	1
58. Diseases of the Pituitary Body ...	...	...	...	...	...
59. Diseases of the Tyhroid Gland—					
(*a*) Exophthalmic Goitre ...	...	3	...	3	...
(*b*) Other disease of the Thyroid Gland, Myxoedema ...	...	4	...	4	...
60. Diseases of the Para-Thyroid Glands ...	...	...	...	...	...
61. Diseases of the Thymus ...	...	...	...	...	...
62. Diseases of the Supra-Renal Glands ...	...	...	...	...	...
63. Diseases of the Spleen ...	...	8	...	8	1
64. Leukæmia—					
(*a*) Leukæmia ...	...	...	...	..	...
(*b*) Hodgkin's Disease ...	...	...	...	...	...
(*c*) Debility ...	1	58	...	59	1
66. Alcoholism ...	...	25	...	25	...
67. Chronic poisoning by mineral substances (lead mercury, &c.) ...	...	...	...	...	...
Carried Over ...	110	7,771	393	7,881	133

Diseases	Remaining in Hospital at end of 1927	Yearly Total		Total cases treated	Remaining in Hospital at end of 1928
		Admissions	Deaths		
Brought forward	110	7,771	393	7,881	133
68. Chronic poisoning by organic substances (Morphia, Cocaine, &c.)	...	...	...	...	...
69. Other General Diseases—					
Auto-intoxication	...	...	...	...	...
Purpura Hæmorhagica	...	1	...	1	...
Hæmophilia	...	1	...	1	...
Diabetes Insipidus	...	12	1	12	...
Opium Smoker	...	1	...	1	...
III.—*Affections of the Nervous System and organs of the senses*					
70. Encephalitis (not including Encephalitis Lethargica)	...	1	...	1	1
71. Menengitis (not including Tuberculos Meningitis or Cerebrospinal Meningitis)	...	8	6	8	...
72. Locomotor Ataxia	...	2	1	2	...
73. Other affections of the Spinal Cord	...	7	...	7	...
74. Apoplexy—					
(*a*) Hæmorrhage	...	25	14	25	2
(*b*) Embolism	...	3	1	3	...
(*c*) Thrombosis	...	12	2	12	...
75. Paralysis—					
(*a*) Hemiplegia	...	40	1	40	1
(*b*) Other Paralyses	...	24	...	24	1
76. General Paralysis of the Insane	...	2	2	2	...
77. Other forms of Mental Alienation	...	18	...	18	...
78. Epilepsy	2	97	3	99	3
79. Eclampsia, Convulsions (non-puerperal) 5 years or over	...	3	1	3	...
80. Infantile Convulsions	...	3	1	3	...
81. Chorea	...	1	...	1	...
82. A.—Hysteria	...	13	...	13	...
B.—Neuritis	...	14	1	14	2
C.—Neurasthenia	1	10	...	11	1
83. Cerebral Softening	...	9	...	9	1
84. Other affections of the nervous System, such as Paralysis Agitans	2	12	...	14	2
85. Affections of the Organs of Vision—					
(*a*) Diseases of the Eye	2	149	...	151	4
(*b*) Conjunctivitis	4	54	...	58	7
(*c*) Trachoma	...	..	...	...	...
(*d*) Tumours of the Eye	...	...	...	...	...
(*e*) Other affections of the Eye	2	200	...	202	3
86. Affections of the Ear or Mastoid Sinus	...	98	...	98	1
IV.—*Affections of the Circulatory System*					
87. Pericarditis	...	6	3	6	...
88. Acute Endocarditis or Myocarditis	...	...	...	..	...
89. Angina Pectoris	...	8	1	8	...
90. Other Diseases of the Heart—					
(*a*) Vulvular—	...	8	...	8	...
Mitral	6	161	18	167	3
Aortic	...	11	...	11	1
Tricuspid	...	...	...	...	...
Pulmonary	...	...	...	...	...
(*b*) Myocarditis	...	58	16	58	...
Tachycardia	...	3	...	3	...
91. Diseases of the Arteries—					
(*a*) Aneurism	...	1	...	1	...
(*b*) Arterio-Sclerosis	...	59	1	59	1
(*c*) Other diseases	...	7	1	7	...
92. Embolism or Thrombosis (non-cerebral)	...	4	...	4	...
93. Diseases of the Veins—					
Hæmorrhoids	1	164	...	165	...
Varcicose Veins	...	8	...	8	...
Phlebitis	...	3	1	3	...
Carried over	130	9,092	468	9,222	167

DISEASES	Remaining in Hospital at end of 1927	Yearly Total		Total cases treated	Remaining in Hospital at end of 1928
		Admissions	Deaths		
Brought forward ...	130	9,092	468	9,222	167
94. Diseases of the Lymphatic System-	...	28	2	28	...
Lymphangitis ...	...	19	...	19	2
Lymphadenitis, Bubo (non-specific) ...	...	106	1	106	...
95. Hæmorrhage of undetermined cause ...	...	5	2	5	...
96. Other affections of the Circulatory System...	...	2	1	2	...
V.—*Affections of the Respiratory System*					
97. Diseases of the Nasal Passages—					
Adenoids ...	...	3	...	3	...
Polypus ...	...	4	...	4	...
Rhinitis ...	...	5	...	5	...
Sinusitis ...	...	15	...	15	...
98. Affections of the Larynx—					
Laryngitis ...	...	6	1	6	...
99. Bronchitis—					
(*a*) Acute ...	18	418	20	436	5
(*b*) Chronic ...	10	303	7	313	5
100. Broncho-Pneumonia ...	2	58	16	60	...
101. Pneumonia ...	1	10	3	11	...
(*a*) Lobar ...	2	147	64	149	4
(*b*) Unclassified ...	3	58	24	61	1
(*c*) Double ...	...	1	1	1	...
102. Pleurisy, Empyema ...	1	53	2	54	2
103. Congestion of the Lngs ...	...	23	7	23	...
104. Gangrene of the Lungs ...	...	4	3	4	...
105. Asthma ...	5	280	8	285	6
106. Pulmonary Emphysema ...	...	38	2	38	...
107. Other affections of the Lungs—					
Pulmonary Spirochætosis ...	...	32	...	32	...
VI.—*Diseases of the Digestive System*					
108. A.—Diseases of Teeth or Gums—	1	107	...	108	1
Caries, Pyorrhæa, &c. ...	...	...	...	...	...
B.—Other affections of the Mouth—					
Stomatitis ...	...	22	...	22	...
Glossitis, &c. ...	...	6	...	6	...
109. Affections of the Pharynx or Tonsils—					
Tonsillitis ...	1	82	1	83	...
Pharyngitis ...	...	5	...	5	1
110. Affections of the Œsophagus ...	...	...	...	...	...
111. A.—Ulcer of the Stomach ...	...	72	8	72	1
B.—Ulcer of the Duodenum ...	4	30	3	34	2
112. Other affections of the Stomach—					
Gastritis ...	10	139	1	149	2
Dyspepsia, etc. ...	3	195	...	198	1
113. Diarrhœa and Enteritis—					
Under two years ...	3	154	22	157	1
114. Diarrhœa and Enteritis—	...	11	...	11	...
Two years and over ...	6	352	22	358	7
Collitis ...	...	93	19	93	...
Ulceration ...	...	4	...	4	...
114a Sprue ...	...	...	...	...	...
115. Ankylostomiasis ..	32	2,135	54	2,167	25
116. Diseases due to Intestinal Parasites—					
(*a*) Cestoda (Tænia) ...	...	4	...	4	..
(*b*) Trematoda (Flukes) ...	...	7	...	7	...
(*c*) Nematoda (other than Ankylostoma)—					
Ascaris ...	4	95	2	99	1
Trichocephalus dispar. ...	...	18	...	18	...
Trichina ...	...	...	...	...	...
Dracunculus ...	..	...	...	...	...
Strongylus ...	...	1	...	...	...
Oxyuris ...	...	1	...	1	...
(*d*) Coccidia ...	...	...	...	...	...
(*e*) Other parasites ...	...	49	3	49	...
(*f*) Unclassified ...	18	82	5	100	22
Carried over ...	254	14,374	772	14,628	256

DISEASES	Remaining in Hospital at end of 1927	Yearly Total		Total cases treated	Remaining in Hospital at end of 1928
		Admissions	Deaths		
Brought forward	254	14,374	772	14,628	256
117. Appendicitis	4	271	6	275	4
118. Hernia	...	156	1	156	4
119. A.—Affections of the Anus, Fistula, &c.	2	129	1	131	2
B.—Other affections of the Intestines	1	8	2	9	1
Enteroptosis	...	5	...	5	...
Constipation	1	73	...	74	...
Paralysis	...	1	...	1	...
120. Acute yellow Atrophy of the Liver					
121. Hydatid of the Liver					
122. Cirrhosis of the Liver—					
(*a*) Alcoholic	...	1	1	1	...
(*b*) Other forms	...	29	3	29	1
123. Biliary Calculus	...	14	...	14	...
124. Other affections of the Liver—					
Abscess	2	23	6	25	...
Hepatitis	...	99	1	99	1
Cholecystitis	1	28	2	29	1
Jaundice	...	10	2	10	...
125. Diseases of the Pancreas	...	3	...	3	...
126. Peritonitis (of unknown cause)	...	20	20	20	2
127. Other affections of the Digestive System	1	63	6	64	1
VII.—*Diseases of the Genito-urinary System (non-Venereal.)*					
128. Acute Nephritis	12	314	58	326	6
129. Chronic	2	168	28	170	6
130. A.—Chyluria	...	2	...	2	1
B.—Schistosomiasis	...	61	...	61	...
131. Other affections of the Kidneys—Pyelitis, etc.	...	22	...	22	...
132. Urinary Calculus	...	22	1	22	...
133. Diseases of the Bladder—Cystitis	3	95	6	98	2
134. Diseases of the Urethra—					
(*a*) Stricture	3	65	...	68	1
(*b*) Other	...	50	...	50	...
135. Diseases of Prostate—					
Hypertrophy	1	10	...	11	...
Prostatitis	...	8	...	8	..
136. Diseases (non Venereal) of the Genital Organs of Man—	...	13	...	13	..
Epididymitis	1	9	...	10	...
Orchitis	2	77	...	79	2
Hydrocele	...	237	...	237	2
Ulcer of Penis	2	8	...	10	...
Phimosis	2	...	...	2	...
137. Cysts or other non-malignant Tumours of the Ovaries	...	35	2	35	... 1
138. Salpingitis	..	19	...	19	...
Abcess of the Pelvis	2	64	2	66	1
139. Uterine Tumours (non-malignant)	...	18	...	18	1
140. Uterine Hæmorrhage non-puerperal	...	20	...	20	...
141. A.—Metritis	...	45	...	45	...
B.—Other affections of the Female Genital Organs—	3	46	...	49	...
Displacements of Uterus	1	56	...	57	...
Amenorrhœa	...	17	...	17	...
Dysmenorrhœa	...	13	...	13	...
Leucorrhœa	...	7	...	7	...
142. Diseases of the Breast (non-puerperal)—	...	1	...	1	...
Mastitis	...	12	...	12	...
Abscess of Breast	...	48	...	48	1
Carried over	300	16,869	920	17,169	297

Diseases	Remaining in Hospital at end of 1927	Yearly Total		Total cases treated	Remaining in Hospital at end of 1928
		Admissions	Deaths		
Brought forward ...	300	16,869	920	17,169	297
VIII—*Puerperal State.*					
143. A.—Normal Labour ...	8	419	...	427	6
B.—Accidents of Pregnancy— ...	...	36	2	36	1
(*a*) Abortion ...	...	10	...	10	...
(*b*) Ectopic Gestation ...	...	2	...	2	...
(*c*) Other accidents of Pregnancy ...	...	116	1	116	...
144. Puerperal Hæmorrhage ...	...	52	2	52	...
145. Other accidents of Parturition ...	1	19	6	20	2
146. Puerperal Septicœmia ...	..	14	7	14	...
147. Phlegmasia Dolens ...	...	...	...	...	...
148. Puerperal Eclampsia ...	...	7	4	7	1
149. Sequelæ of Labour ...	1	8	5	9	...
150. Puerperal affections of the Breast ...	...	8	3	8	...
IX.—*Affections of the Skin and Cellular Tissues.*					
151. Gangrene ...	...	40	14	40	...
152. Boil— ...	2	24	...	26	...
Carbuncle ...	5	37	1	42	...
Furunculosis ...	...	2	...	2	...
153. Abscess— ...	17	639	3	656	23
Whitlow ...					
Cellulitis ...	25	540	3	565	9
154. A.—Tinea ...	...	17	...	17	..
B.—Scabies ...	...	96	...	96	...
155. Other Diseases of the Skin— ...	4	88	...	92	7
Brythema ...	...	5	...	5	1
Urticaria ...	...	12	...	12	2
Eczema ...	...	94	2	94	...
Herpes ...	...	23	...	23	...
Psoriasis ...	...	12	...	12	...
Elephantiasis ...	...	10	...	10	...
Myiasis ...	...	5	...	5	...
Chigœs ...	...	2	...	2	...
Cutaneous Leishmaniasis ...	3	133	...	136	...
Other Diseases ...	2	7	...	9	5
X.—*Diseases of the (Bones and Organ) of Locomotion (other than Tuberculous.)*					
156. Diseases of Bones—					
Osteitis ...	1	69	1	70	1
157. Diseases of Joints—					
Arthritis ...	2	86	...	88	1
Synovitis ...	...	13	...	13	...
158. Other Diseases of Bones or Organs of Locomotion ...	5	33	...	38	...
XI.—*Malformations.*					
159. Malformations—					
Hydrocephalus ...	...	...	...	...	...
Hypospadias ...	...	1	...	1	...
Spina Bifida, &c. Left foot ...	...	2	...	2	...
Absence of vagina and uterus ...	...	1	...	1	...
Cleft palate ...	...	1	...	1	...
XII.—*Diseases of Infancy*					
160. Congenital Debility ...	...	46	19	46	2
161. Premature Birth ...	...	34	13	34	...
162. Other affections of Infancy ...	...	1	...	1	...
163. Infant neglect (infants of three months or over) ...	...	...	...	...	...
Not specified ...	...	130	10	130	10
XIII.—*Affections of Old ge*					
164. Senility—	...	29	11	29	...
Senile Dementia ...	3	183	13	186	...
Carried over ...	379	19,975	1,040	20,354	368

DISEASES	Remaining in Hospital at end of 1927	Yearly Total		Total cases treated	Remaining in Hospital at end of 1928
		Admissions	Deaths		
Brought forward ...	379	19,975	1,040	20,354	368
XIV.—*Affections produced by External Causes.*					
165. Suicide by Poisoning ..	...	3	...	3	...
166. Corrossive Poisoning (intentional) ...	...	...	...	...	...
167. Suicide by Gas Poisoning ...	...	1	...	1	...
168. Suicide by Hanging or Strangulation ..	...	...	...	...	...
169. Suicide by Drowning ...	...	1	...	1	...
170. Suicide by Firearms ...	...	...	...	...	...
171. Suicide by cutting or stabbing Instruments	...	...	...	...	...
172. Suicide by jumping from a height ...	...	...	...	...	...
173. Suicide by crushing ...	...	...	...	...	...
174. Other Suicides ...	...	2	...	2	...
175. Food Poisoning—					
Botulism ...	...	...	...	...	...
176. Attacks of poisonous—					
Snake Bite ...	...	...	...	...	...
Insect Bite ...	...	...	...	...	...
177. Other accidental Poisonings ...	...	9	...	9	...
178. Burns (by Fire) ...	...	71	22	71	3
179. Burns (other than by Fire) ...	1	51	6	52	...
180. Suffocation (accidental) ...	...	...	...	...	...
181. Poisoning by Gas (accidental) ...	...	3	2	3	...
182. Drowning (accidental) ...	...	3	...	3	1
183. Wounds (by Firearms, war excepted) ...	2	16	...	18	1
184. Wounds (by cutting or stabbing Instruments) ...	7	420	1	427	5
185. Wounds (by Fall) ...	...	210	1	210	4
186. Wounds (in Mines or Quarries) ...	...	11	...	11	...
187. Wounds (by Machinery) ...	...	26	1	26	3
188. Wounds (crushing, *e.g.* railway accidents, &c.) ...	...	84	3	84	1
189. Injuries inflicted by Animals, Bites, Kicks, etc. ...	...	25	1	25	...
190. Wounds inflicted on Active Service ...	...	...	...	...	...
191. Executions of civilians by belligerents ...	...	...	...	...	...
192. A.—Over fatigue ...	...	...	...	...	...
B.—Hunger or Thirst ...	...	...	...	...	...
193. Exposure to Cold Frost bite, &c. ...	...	...	...	...	...
194. Exposure to heat—					
Heatstroke ...	...	...	...	...	...
Sunstroke ...	...	...	...	...	...
195. Lightning Stroke ...	...	...	...	...	...
196. Electric Shock ...	...	...	...	...	...
197. Murder by Firearms ...	...	...	...	...	...
198. Murder by cutting or stabbing Instruments	...	...	...	...	...
199. Murder by other means ...	...	...	...	...	...
200. Infanticide (Murder of an infant under one year) ...	...	...	...	...	...
201. A.—Dislocation ...	...	27	...	27	...
B.—Sprain ...	1	45	...	46	...
C.—Fracture ...	8	330	18	338	
202. Other external Injuries ...	5	435	8	440	6
203. Deaths by Violence of unknown cause ...	...	...	...	...	...
XV.—*Ill-Defined Diseases.*					
204. Sudden Deaths (cause unknown)—					
205. A.—Diseases not already specified or ill-defined ...	23	880	12	903	21
Ascites ...	2	64	1	66	...
Œdema ...	...	1	...	1	...
Asthenia ...	1	7	...	8	...
Shock ...	...	8	6	8	...
Hyperpyrexia ...	...	1	...	1	...
B.—Malingering ...	2	214	...	216	4
Not Specified ...	6	69	...	75	1
Hunger Strike ...	...	1	...	1	1
XVI.—*Diseases the total of which have not caused 10 Deaths*	17	1,055	3	1,072	22
Total	454	24,048	1,125	24,502	450

Summary

Diseases	Remaining in Hospital at end of 1927	Yearly Total		Total cases treated	Remaining in Hospital at end of 1928
		Admissions	Deaths		
I.—Epidemic, Endemic, and Infections Diseases ...	97	6,786	354	6,883	111
II.—General Diseases not mentioned above ...	13	1,000	40	1,013	22
III.—Affections of the Nervous System and Organs of the Senses ...	13	805	33	818	29
IV.—Affections of the Circulatory System ...	7	661	47	668	7
V.—Affections of the respiratory System ...	42	1,458	158	1,500	23
VI.—Diseases of the Digestive System ...	94	4,597	191	4,691	81
VII.—Diseases of the Genito Urinary System (*non-veneral*) ...	34	1,562	97	1,596	24
VIII.—Puerperal State ...	10	691	30	701	10
IX.—Affections of the Skin and Cellular Tissues ...	58	1,786	23	1,844	47
X.—Diseases of Bones and Organs of Locomotion (*other than Tuberculous*) ...	8	201	1	209	2
XI.—Malformations ...	...	5	...	5	...
XII.—Diseases of Infancy ...	...	211	42	211	12
XIII.—Affections of Old age ...	3	212	24	215	...
XIV.—Affections produced by external Causes...	24	1,773	63	1,797	33
XV.—Ill-Defined Diseases ...	34	1,245	19	1,279	27
XVI.—Diseases, the total of which have not caused 10 Deaths ...	17	1,055	3	1,072	22
Tolal ...	454	24,048	1,125	24,502	450

Return of Births

	Number	Deaths
Born alive at term ...	376	16
Prematurely born ...	25	29
Still born ...	75	15
Total	476	60

Return of Surgical Operations

Operations	Number	Death
Operations for :—		
Tumors ...	118	5
Evacuation of Abscesses ...	1,287	25
Operation on :—		
Blood vessels ...	18	...
Lymphatic Glands ...	110	2
Skin and Subcutaneous Tissues	217	6
Bones ...	139	2
Nerves ..	1	...
Joints ...	81	5
Muscles and Tendons ...	41	...
Skull and Brain ...	22	...
Eye ...	177	...
Ear ...	29	...
Head and Face ...	64	5
Chest ...	51	1
Abdominal Cavity ...	545	35
Spleen ...	1	...
Rectum and Anus ...	176	1
Urinary system ...	46	4
Male Generative Organs ...	364	2
Female Generative Organs ...	162	5
Amputations ...	68	6
Obsteric Operations ...	48	5
Cesatrian Section) ...	2	...
(Other Operations ...	512	1
Tonsillectomy ...	29	...
Dental Extraction ...	80	...
Total ...	4,391	110

RETURN OF DISEASES (*Out Patients*) FOR THE YEAR 1928.

Diseases	Male	Female
I.—*Epidemic, Endemic and Infections Diseases*		
1. Enteric Group—	...	...
(*a*) Typhoid Fever	2	...
(*b*) Paratyphoid A.	...	...
(*c*) Paratyphoid B.	...	...
(*d*) Type not defined	...	...
2. Typhus	...	...
3. Relapsing Fever	...	...
4. Undulant Fever	...	...
5. Malaria—	2,746	2,701
(*a*) Tertian	5,693	6,770
(*b*) Quartian	1,829	2,183
(*c*) Aestivo-autumnal	221	222
(*d*) Cachexia	509	453
(*e*) Blackwater	3	3
(*f*) Intermediate	204	96
(*g*) Quotidian	769	596
6. Meales	...	...
7. Scarlet Eever	...	...
8. Whooping Cough	6	7
6. Diphtheria	1	...
10. Influenza	4,691	4,781
11. Miliary Fever	...	...
12. Mumps	...	...
13. Cholera	...	...
14. Epidemic diarrhoea	140	179
15. Diarrhoea without epidemic	113	124
16. Dysentry—	33	33
(*a*) Amoebic	984	708
(*b*)Bacillary	82	60
(*c*) Undefined or due to other causes	112	75
17. Plague—		
(*a*) Bubonic	...	...
(*b*) Pneumonic	...	...
(*c*) Septicæmic	...	...
(*d*) Undefined	...	...
18. Yellow Fever	...	...
19. Spirochætosis ictero-hæmorrhagica	...	...
20. Leprosy	1	2
21. Erysipelas	2	2
22. Acute Poliomyelitis	...	1
23. Encephalitis Lethargica	...	...
24. Epidemic Cerebro-spinal Fever	...	...
25. Other Epidemic Diseases—		
(*a*) Rubeolla (German Measles)	...	...
(*b*) Varicella (Chicken-pox)	...	...
(*c*) Kalla-azar	...	...
(*d*) Phlebotomus Fever	...	...
(*e*) Dengue	...	...
(*f*) Epidemic Dropsy	...	...
(*g*) Yaws	...	...
(*h*) Trypanosomiasis	...	...
26. Glanders	20	8
27. Debility	200	105
28. Anthrax	9	13
29. Rabies	...	4
30. Tetanus	1	1
31. Mycosis	...	...
32 Tuberculosis, Pulmonary and Paryngeal	239	172
33. Tuberculosis of the Meninges or Central Nervous System	...	...
34. Tuberculosis of the Intestine or Peritoneum	...	...
35. Tuberculosis of the Vertebral Column	15	22
36. Tuberculosis of Bones and Joints	5	1
Carried over	18,630	19,322

Diseases	Male	Female
Brought forward ...	18,630	19,322
37. Tuberculosis of other organs—		
(*a*) Skin or Subcutaneous Tissue (Lupus) ...	5	4
(*b*) Bones ...	...	5
(*c*) Lymphatic System ...	35	24
(*d*) Genito-urinary ...	6	2
(*e*) Other Organs ...	...	...
38. Tuberculosis disseminated—		
(*a*) Acute ...	...	...
(*b*) Chronic ...	2	2
39. Syphilis—		
(*a* Primary ...	22	4
(*b*) Secondary ...	44	16
(*c*) Tertiary ...	97	60
(*d*) Hereditary ...	...	...
(*e*) Period not indicated ...	3	2
40. Soft Chancre ...	13	...
41. A.—Gonorrhœa and its complications ...	168	17
B.—Gonorrhœal Ophthalmia ...	1	...
C.—Gonorrhœal Venereum ...	12	...
42. Septicæmia ...	...	...
43. Other Infectious Diseases—		
(*a*) Trypanosomiasis ...	...	...
(*b*) Filariosis ...	...	...
II.—*General Diseases not mentioned above*		
44. Cancer or other malignant Tumours of the Buccal Cavity ...	...	...
45. Cancer or other malignant Tumours of the Stomach or Liver ...	1	...
46. Cancer or other malignant Tumours of the Peritoneum Intestines, Rectum ...	...	...
47. Cancer or other malignant Tumours of the Female Genital Organs ...	...	...
48. Cancer or other malignant Tumours of the Breast ...	...	1
49. Cancer or other malignant Tumours of the skin ...	...	5
50. Cancer or other malignant Tumours of organs not specified ...	...	...
51. Tumours non-malignant ...	2	1
52. Acute Rhumatism ...	1,072	905
53. Chronic Rhumatisms ...	570	590
54. Scurvy (including Barlows Disease) ...	...	2
55. Pellagra ...	...	...
56. Beri-Beri ...	...	...
57. Rickets ...	1	...
58. Diabetes (not include Insipidus) ...	12	21
59. Anæmia—		
(*a*) Pernicious ...	222	285
(*b*) Other Anæmias and Chlorosis ...	530	841
(*c*) Debility ...	7	2
59. Diseases of the Pituitary Body ...	3	10
60. Diseases of the Thyroid Gland		
(*a*) Exophthalmic Goitre ...	...	3
(*b*) Other diseases of the Thyroid Gland Myxoedema ...	...	5
61. Diseases of the Para-Thyroid Glands ...	...	...
62. Diseases of the Thymus ...	...	...
63. Diseases of the Supra-Renal Glands ...	...	...
64. Diseases of the Spleen ...	169	156
65. Leukæmia ...		
(*a*) Leukæmia ...	...	...
(*b*) Hodgkin's Disease ...	...	...
66. Alcoholism ...	...	...
67. Chronic poisoning by mineral substances (lead, mercury, &c.) ...	...	...
68. Chronic poisoning by organic substances (Morphia, Cocaine, &c.) ...	...	...
Carried over ...	21,627	22,285

Diseases	Male	Female
Brought forward ...	21,627	22,285
69. Other General Diseases—	110	214
Auto-intoxication ...	...	...
Purpura Hæmorrhagica ...	...	3
Hæmophilia	...	...
Diabetes Insipidus ...	5	...
Debility ...	106	52
III.—*Affections of the Nervous System and organs of the senses*		
70. Encephalitis (not including Encephalitis Lethargica) ...	...	...
71. Menengitis (not including Tuberculos Meningitis or Cerebrospinal Meningitis) ...	...	...
72. Locomotor Ataxia ...	...	...
73. Other affections of the Spinal Cord ...	...	...
74. Apoplexy—		
(*a*) Hæmorrhage ...	14	18
(*b*) Embolism ...	...	...
(*c*) Thrombosis ...	...	...
75. Paralysis—		
(*a*) Hemiplegia ...	41	13
(*b*) Other Paralyses ...	24	12
76. General Paralysis of the Insane ...	...	..
77. Other forms of Mental Alienation ...	...	...
78. Epilepsy ...	73	87
79. Eclampsia, Convulsions (nonpuerperal 5 years or over ...	...	6
80. Infantile Convulsions ...	68	55
81. Neuralgia ...	13	11
82. A.—Hysteria ...	1	40
B.—Neuritis ...	45	53
C.—Neurasthenia ...	72	112
83. Cerebral Softening ...	44	78
84. Other affections of the nervous System, such as Paralysis Agitans ...	180	183
85. Affections of the Organs of Vision—		
(*a*) Diseases of the Eye ...	85	68
(*b*) Conjunctivitis ...	287	250
(*c*) Trachoma ...	4	4
(*d*) Tumours of the Eye ...	3	4
(*e*) Other affections of the Eye ...	166	143
86. Affections of the Ear or Mastoid Sinus ...	309	312
IV.—*Affections of the Circulatory System*		
87. Pericarditis ...	...	...
88. Acute Endocarditis or Myocarditis ...	1	1
89. Angina Pectoris ...	...	...
90. Other Diseases of the Heart— ...	23	29
(*a*) Vulvular		
Mitral ...	103	192
Aortic ...	31	47
Tricuspid ...	...	...
Pulmonary ...	1	6
(*b*) Myocarditis ...	2	...
91. Diseases of the Arteries—		
(*a*) Aneurism ...	10	27
(*b*) Arterio-Sclerosis ...	88	143
(*c*) Other diseases ...	32	20
92. Embolism or Thrombosis (noncereberal) ...	...	...
93. Diseases of the Veins—		
Hæmorrhoids ...	107	70
Varcicose Veins ...	...	...
Phlebitis ...	8	2
94. Diseases of the Lymphatic System—		
Lymphangitis ...	48	52
Lymphadenitis, Bubo (nonspecific) ...	42	30
95. Hæmorrhage of undetermined cause ...	5	4
96. Other affections of the Circulatory System ...	27	49
Carried over ...	23,805	24,675

	Diseases	Male	Female
	Brought forward	23,805	24,675
	V.—*Affections of the Respiratory System*		
97.	Diseases of the Nasal Passages—	1	...
	Adenoids	3	1
	Polypus	4	1
	Rhinitis	25	31
	Coryza	27	35
98.	Affections of the Larynx—		
	Laryngitis	46	58
99.	Bronchitis—		
	(*a*) Acute	1,795	1,557
	(*b*) Chronic	847	752
100.	Broncho-Pneumonia	100	18
101.	Pneumonia	41	14
	(*a*) Lobar	39	8
	(*b*) Unclassified	5	4
102.	Pleurisy, Emphysema	54	28
103.	Congestion of the Lungs	8	2
104.	Gangrene of the Lungs	...	...
105.	Asthma	892	605
106.	Pulmonary Emphysema	11	1
107.	Other affections of the Lungs—		
	Pulmonary Spirochætosis	35	35
	VI.—*Diseases of the Digestive System*		
108.	A.—Diseases of Teeth or Gums—		
	Caries, Pyorrhæa, &c.	1,396	1,116
	B.—Other affections of the Mouth—		
	Stomatitis	152	148
	Glossitis, &c.	10	11
109.	Affections of the Pharynx or Tonsils—		
	Tonsillitis	94	108
	Pharyngitis	24	14
110.	Affections of the Œsophagus	6	...
111.	A.—Ulcer of the Stomach	20	6
	B.—Ulcer of the Duodenum	...	6
112.	Other affections of the Stomach—		
	Gastritis	568	779
	Dyspepsia, etc.	1,512	1,646
113.	Diarrhœa and Enteritis—		
	Under two years	550	579
114.	Diarrhœa and Enteritis—	104	107
	Two years and over	1,137	918
	Colitis	80	103
	Ulceration	38	25
	Flatulence	1	2
114a	Sprue	...	...
115.	Ankylostomiasis	2,257	2,665
116.	Diseases due to Intestinal Parasites—	68	64
	(*a*) Cestoda (Tænia)	1	...
	(*e*) Tremamatodo (Flukes)	...	...
	(*c*) Nematoda (other than Ankylostoma)—		
	Ascaris	1,964	1,841
	Trichocephalus dispar.	1	3
	Trichina	...	1
	Dracunculus	...	...
	Strongylus	...	...
	Oxyuris	5	18
	(*d*) Coccidia	...	...
	(*e*) Other parasites	24	11
	(*f*) Unclassified	75	115
117.	Appendicitis	57	43
118.	Hernia	55	18
119.	A.—Affections of the Anus, Fistula, &c.	29	11
	B.—Other Affections of the Intestines	42	40
	Enteroptosis	...	...
	Constipation	457	505
	Carried over	38,465	38,728

Diseases	Male	Female
Brought forward ...	38,465	38,728
120. Acute yellow Atrophy of the Liver ...	8	4
121. Hydatid of the Liver ...	8	3
122. Cirrhosis of the Liver ...	...	...
(*a*) Alcoholic ...	9	3
(*b*) Other forms ...	2	24
123. Biliary Calculus ...	...	3
124. Other affections of the Liver— ...	2	1
Abscess ...	6	5
Hepatitis ...	93	61
Cholecystitis ...	22	4
Jaundice ...	24	18
Liver Congestion ...	...	2
125. Diseases of the Pancreas ...	...	1
126. Peritonitis (of unknown cause) ...	...	...
127. Other affections of the Digestive System ...	540	417
VII.—*Diseases of the Genito-urinary System non-Venereal*		
128. Acute Nephritis ...	159	153
129. Chronic ...	84	53
130. A.—Chyluria ...	3	6
B.—Schistosomiasis ...	42	18
131. Other affections of the Kidneys—		
Pyelitis, etc. ...	41	70
132. Urinary Calculus ...	5	6
133. Diseases of the Bladder—		
Cysitits ...	122	85
134. Diseases of the Urethra—		
(*a*) Stricture ...	20	1
(*b*) Other ...	39	...
135. Diseases of the Prostrate—		
Hypertrophy ...	2	...
Prostatitis ...	31	1
136. Diseases (non-Venereal) of the Genital Organs of Man ...	14	...
Epididymitis ...	13	...
Orchitis ...	102	...
Hydrocele ...	92	...
Ulcer of Penis ...	13	...
137. Cysts or other non-malignant Tumours of the Ovaries ...	...	2
138. Salpingitis—		
Abscess of the Pelvis ...	...	19
139. Uterine Tumours (non-malignant) ...	...	44
140. Uterine Hæmorrhage non-puerperal ...	...	105
141. A.—Metritis ...	...	23
B.—Other affections of the Female Genital Organs— ...	...	183
Displacements of Uterus ...	...	56
Amenorrhœa ...	...	415
Dysmenorrhœa ...	...	275
Leucorrhœa ...	...	215
142. Diseases of the Breast (non-puerperal)—		
Mastitis ...	...	24
Abscess ...	...	78
VII.—*Puerperal State*		
143. A.—Normal Labour ...	...	5
B.—Accidents of Pregnancy ...	...	28
(*a*) Abortion ...	...	8
(*b*) Ectopic Gestation ...	...	3
(*c*) Other accidents of Pregnancy ...	...	60
144. Puerperal Hæmorrhage ...	...	...
145. Other accidents of Parturition ...	...	2
146. Puerperal Septicæmia ...	...	...
147. Phlegmasia Dolens ...	...	...
148. Puerperal Eclampsia ...	...	2
149. Sequelæ of Labour ...	...	...
150. Puerperal affections of the Breast ...	...	...
Carried over ...	39,961	41,214

Diseases		Male	Female
Brought forward	...	39,961	41,214
IX.—*Affections of the Skin and Cellular Tissues*			
151. Gangrene	...	17	6
152. Boil—	...	2	1
Carbuncle	...	87	43
Furunculus	...	33	79
153. Abcess	...	200	220
Whitlow	...	135	190
Cellulitis	...	430	374
154. A.—Tinea	...	9	4
B.—Scabies	...	917	283
155. Other Diseases of the Skin—	...	97	72
Brythema	...	11	6
Urticaria	...	40	37
Eczema	...	413	409
Herpes	...	16	17
Psoriasis	...	40	37
Elephantiasis	...	35	78
Myiasis	...	...	...
Chigœs	...	...	...
Dermatitis	...	1	...
Impetigo	...	13	7
Ulcers	...	163	89
Corns	...	15	...
X.—*Diseases of the Bones and Organs of Locomotion (other than Tuberculous)*			
156. Diseases of Bones	...	1	...
Osteitis	...	5	7
157. Diseases of Joints—			
Arthritis	...	121	122
Synovitis	...	18	10
158. Other Diseases of Bones or Organs of Locomotion	...	17	32
Periositis	...	...	3
XI.—*Malformations*			
159. Malformations—			
Hydrocephalus	...	..	...
Hypospadias	...	1	...
Spina Bifida, &c.	...	...	...
Cutanous Parasites	...	6	2
XII.—*Diseases of Infancy*			
160. Congential Debility	...	49	41
161. Premature Birth	...	...	...
162. Other affections of Infancy	...	1	...
163. Infant neglect (infants of three months or over)		...	...
XIII.—*Affections of Old Age*			
164. Senility—	...	96	175
Senile Dementia	...	49	47
Debility	...	10	11
XIV.—*Affections produced by External Causes*			
165. Suicide by Poisoning	...	...	...
166. Corrosive Poisoning (intentional)	...	...	...
167. Suicide by Gas Poisoning	...	...	...
168. Suicide by Hanging or Strangulation	...	...	...
169. Suicide by Drowning	...	...	...
170. Suicide by Firearms	...	...	...
171. Suicide by cutting or stabbing Instruments	...	...	...
172. Suicide by jumping from a height	...	...	...
173. Suicide by crushing	...	...	...
174. Other Suicides	...	...	...
175. Food Poisoning—			
Botulism	...		1
176. Attacks of poisonous—			
Snake Bite	...	...	...
Insect Bite	...	...	...
177. Other accidental Poisonings	...	...	1
178. Burns (by fire)	...	34	24
179. Burns (other than by fire)	...	12	20
180. Suffocation (accidental)	...	...	...
181. Poisoning by Gas (accidental)	...	...	...
Carried over	...	43,055	43,671

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Diseases	Male	Female
Brought forward ...	43,055	43,671
182. Drowning (accidental) ...	4	...
183. Wounds (by Firearms, war excepted) ...	...	1
184. Wounds (by cutting or stabbing Instruments) ...	253	105
185. Wounds (by Fall) ...	177	92
186. Wounds (in Mines or Quarries) ...	10	...
187. Wounds (by Machinery) ...	14	...
188. Wounds (crushing *e.g.* railway accidents, &c.)	...	...
189. Injuries inflicted by Animals, Bites, Kicks, etc.	34	18
190. Wounds inflicted on Active Service ...	...	...
191. Executions of civilians by belligerents ...	...	...
192. A.—Over fatigue ...	...	...
B.—Hunger or Thirst ...	1	...
193. Exposure to Cold, Frost bite, &c. ...	...	...
194. Exposure to heat—		
Heatstroke ...	..	...
Sunstroke ...	...	...
195. Lightning Stroke ...	...	...
196. Electric Shock ...	...	...
197. Murder by Firearms ...	...	...
198. Murder by cutting or stabbing Instruments ...	...	...
199. Murder by other means ...	...	...
200. Infanticide (Murder of an infant under one year)	...	...
201. A.—Dislocation ...	7	2
B.—Sprain ...	54	14
C.—Fracture ...	48	20
202. Other external Injuries ...	657	187
203. Deaths by Violence of unknown cause ...	...	...
Diseases unclassified ...	124	200
XV.—*Ill-Defined Diseases*		
204. Sudden Deaths (cause unknown)— ...		
205. A.—Diseases not already specified or ill-defined—		
Ascites ...	15	67
Œdema ...	17	16
Asthenia ...	34	47
Shock ...	76	80
Hyperpyrexia ...	...	2
Unclassified ...	207	14
B.—Malingering ...	27	...
XVI.—*Diseases, the total of which have not caused 10 Deaths* ...	1,220	1,807
Total ...	46,034	46,343

Summary

Diseases	Male	Female
I.—Epidemic, Endemic and Infectious Diseases ...	19,038	19,458
II.—General Diseases not mentioned above ...	2,810	3,096
III.—Affections of the Nervous System and Organs of the Senses ...	1,429	1,449
IV.—Affections of the Circulatory System ...	528	672
V.—Affections of the respiratory System ...	3,933	3,150
VI.—Diseases of the Digestive System ...	11,441	11,449
VII.—Diseases of the Genito-Urinary System (*non-venereal*) ...	782	1,832
VIII.—Puerperal State ...	...	108
IX.—Affections of the Skin and Cellular Tissues ...	2,674	1,961
X.—Diseases of Bones and Organs of Locomotion (*other than Tuberculous*) ...	162	174
XI.—Malformations ...	7	2
XII.—Diseases of Infancy ...	50	41
XIII.—Affections of Old Age ...	155	233
XIV.—Affections produced by external causes ...	1,429	685
XV.—Ill-Defined Diseases ...	376	226
XVI.—Diseases, the total of which have not caused 10 Deaths ...	1,220	1,807
Total ...	46,034	46,343

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